



CARD DESIGN & PRINT SOFTWARE

CardStudio™ 2.0

USER GUIDE

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ZEBRA

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CardStudio™ 2.0 User Guide

Introduction

CardStudio™ 2.0 User Guide

Introduction

CardStudio™ 2.0 is a full-feature card design and printing software application with complete capabilities for card design, data management and card production. CardStudio is provided in four editions: Classic, Standard, Enterprise and Professional. All four editions integrate the required features for ID card design and production.

Classic:

CardStudio 2.0 Classic edition allows you to design and print professional photo IDs and other type of card designs with a new easy-to-use interface with design and print features.

Standard:

CardStudio 2.0 Standard edition allows you to create, manage and print high grade card designs with a new easy-to-use interface with design, data management and print features. Including internal database, Excel and .csv file integration for ID records, 2D bar codes and advanced print functionality.

Enterprise:

Designed for enterprise applications, the CardStudio 2.0 Enterprise edition allows you to create and print professional photo IDs and other type of card designs with a new easy-to-use interface with design, data management and print features. Including internal database, Excel and .csv file integration for ID records, 2D bar codes and advanced print functionality. Enterprise edition includes advanced features to connect to multiple databases, ODBC data sources and multiple projects, for advanced card design, issuance and data management capabilities.

Professional:

Created for advanced enterprise applications that require smart card encoding support, CardStudio 2.0 Professional edition allows you to create, print and encode professional card designs with a new easy-to-use interface and design and print features. Including internal database, Excel and .csv file integration for ID records, 2D bar codes and advanced print functionality. Professional also offers the advanced features to connect to multiple databases and ODBC data sources, and multiple projects for advanced card design, issuance and data management capabilities.

CardStudio™ 2.0 is desktop-based card production software developed to design card layouts, manage, add or import card data, capture photo's and signatures as well as one-click printing, making the card production process quick and easy.

CardStudio™ 2.0 is a combination of two specific modules that each have their own area of expertise. DesignStudio focuses on creating perfect card layouts and PrintStudio can handle your data with the ease of well-known spreadsheet software.

DesignStudio gives you the all the needed tools to create a front and back design with images, logo's, shapes and dynamic data. You will be able to create a template with placeholders that help determine the layout of dynamic data. For example: where a passport photo should be placed, a signature or the first and last name of a person.

As a user, you can manage data and layouts for different types of ID cards using different types of printers. PrintStudio gives you the basic tools to import, add and manage data like card holder information, passport photos and signatures. This data can then be connected to a card design or multiple card layouts and selected for printing. CardStudio™ 2.0 imports and prints large amounts of data and cards and makes your card production process faster and more efficient.

Any Windows PC with a network connection can be used to install CardStudio™ 2.0. This PC needs to have an internet connection to download the installation file, register the software and keep the software up to date with automatic updates.

This manual does not describe the installation of printers or other peripherals like a camera or signature pad.

Please refer to the manufacturer's manuals for further information on these devices. Before working with the software, first install the Zebra Windows printer driver so the Zebra Printer is ready to print cards.

CardStudio™ 2.0 User Guide

General Information

CardStudio™ 2.0 User Guide

General Information

It is essential, when you or your organization choose CardStudio™ 2.0 for your card design, data management and card production, to make sure to have the correct hardware to install the software on. We strongly advise a Windows PC for installation, that creates an optimal work environment for the CardStudio™ 2.0 software and supports the correct peripheral devices like card printers.

Specifications

Minimum Hardware specifications

Processor Intel Pentium Dual core
G640 2,8 Ghz or equal
Memory 2GB
Free Disk space 4GB
Graphics 1024 x 768
Monitor/Mouse/keyboard
3 available USB ports
(printer/webcam/signature pad)

Software

Supported Operating Systems:
Windows 7 (32 bit & 64 bit)
Windows 8.1 (32 bit & 64 bit)
Windows 10 (32 bit & 64 bit)

.NET Framework version:
4.7.0

Supported Printers

Updates for support of new printers are added regularly by means of automatic software updates.

Manufacturer	Type	Single sided	Double sided	Batch Printing	True Black	Print job Preferences	Contactless Encoding	MAGstripe Encoding	Remark
Zebra	ZXP Series 1	✓	-	✓	✓	✓	-	✓	
Zebra	ZXP Series 3	✓	✓	✓	✓	✓	✓	✓	
Zebra	ZXP Series 7	✓	✓	✓	✓	✓	✓	✓	
Zebra	ZXP Series 8	✓	✓	✓	✓	✓	✓	✓	
Zebra	ZXP Series 9	✓	✓	✓	✓	✓	✓	✓	
Zebra	ZCL10	✓	✓	✓	✓	✓	-	-	
Zebra	ZC100	✓	-	✓	✓	✓	-	-	
Zebra	ZC300/350	✓	✓	✓	✓	✓	✓	✓	

CardStudio™ 2.0 User Guide

Installation

CardStudio™ 2.0 User Guide

Download and Install

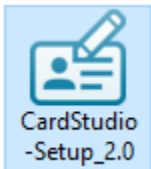
Download the **CardStudio™ 2.0 Software**

Download the latest version of the CardStudio™ 2.0 at:

<https://cardstudio.zebra.com>

or use the optional “[USB Card-Drive](#)” if provided.

The link will download the installer file that will look like this:

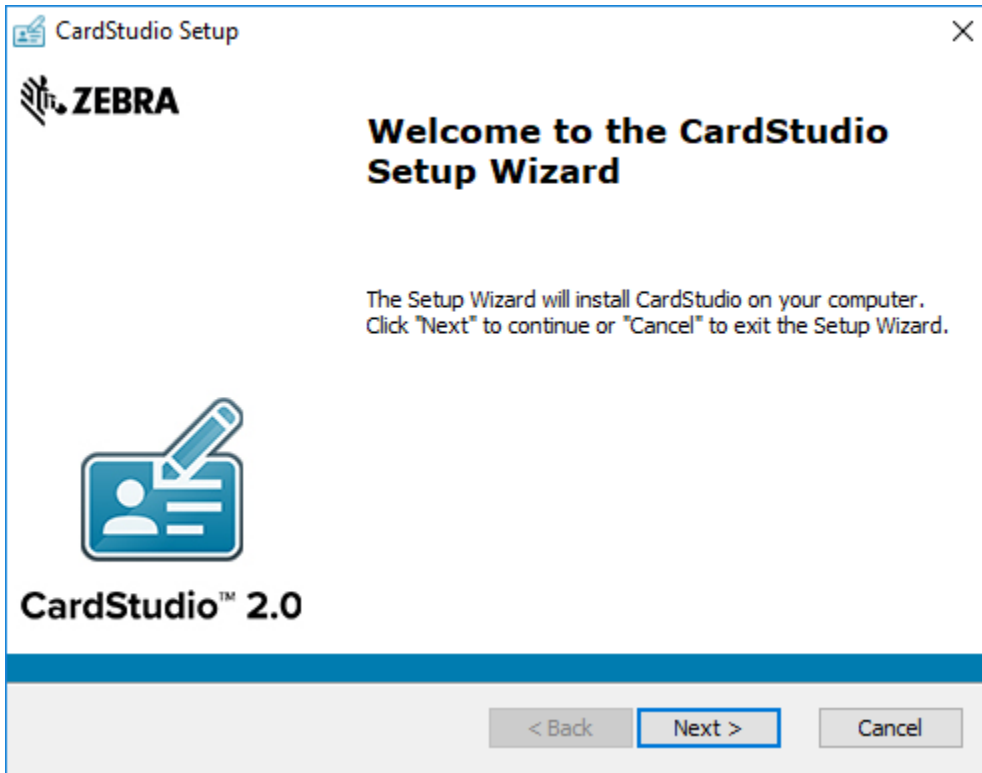


Double-click the icon to open a pop-up verifying you are sure you would like to run the installer. Click 'Run' to start the CardStudio™ 2.0 installation wizard.

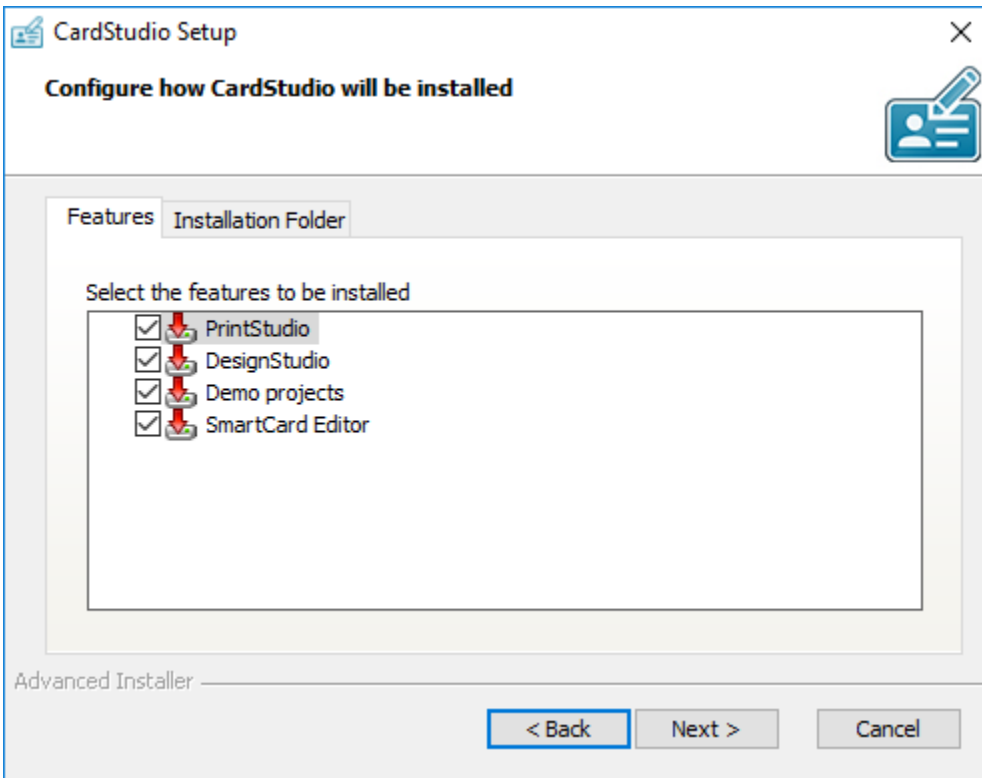
Install CardStudio™ 2.0

A. If you would like to run the installer and setup CardStudio™ 2.0 on your system, click the “Run” button. If you do not want to install CardStudio™ 2.0, click on the “Cancel” button.

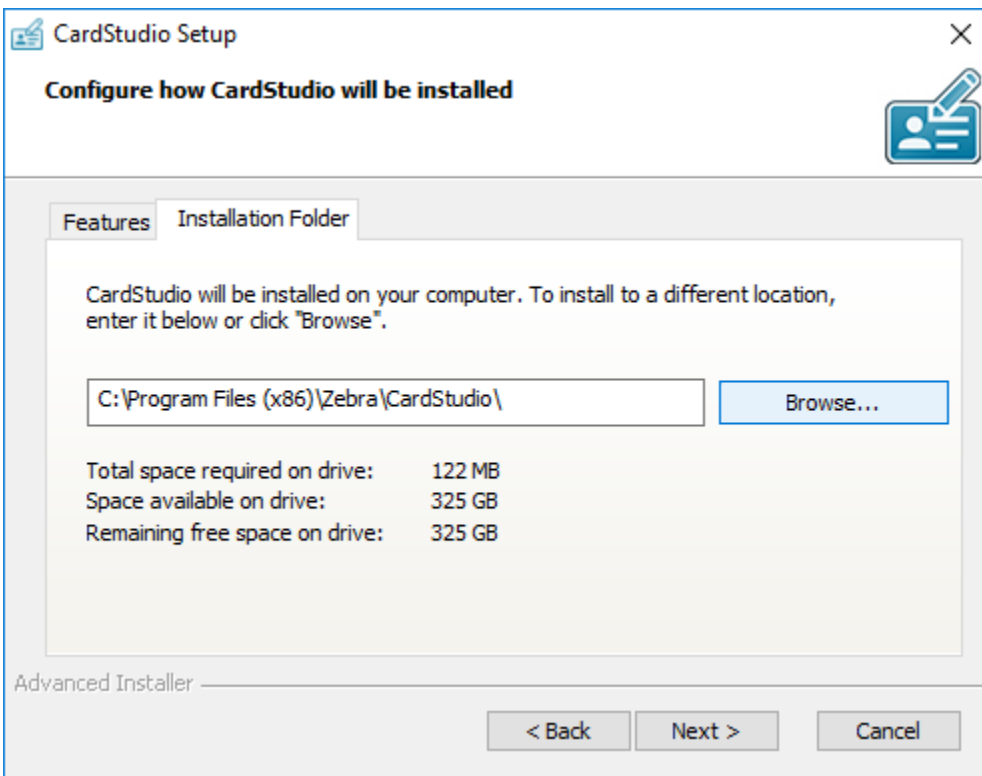
B. Click on the “Next” button to continue the installation of CardStudio™ 2.0.



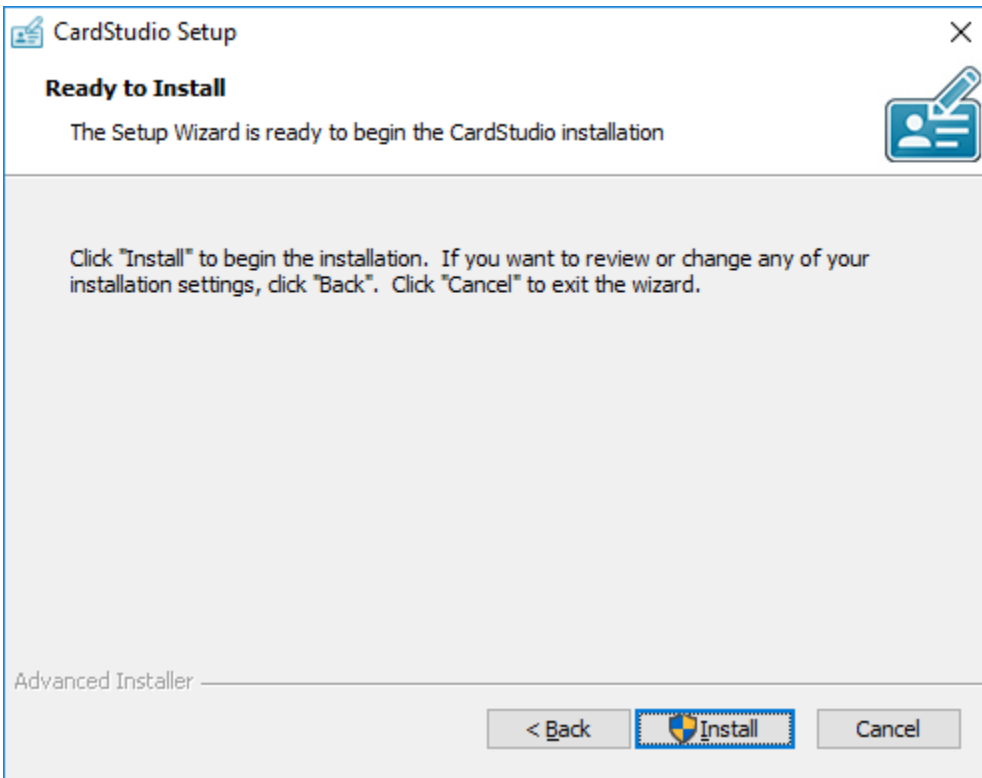
C.1 The “Features” tab: The third step in the installation process is to select how you would like to install CardStudio. You can select the features you would like to install. DesignStudio, PrintStudio, Demo projects and the SmartCard Editor are selected by default. If you would like to only install PrintStudio or DesignStudio, just un-check the boxes of the features you do not want to install.



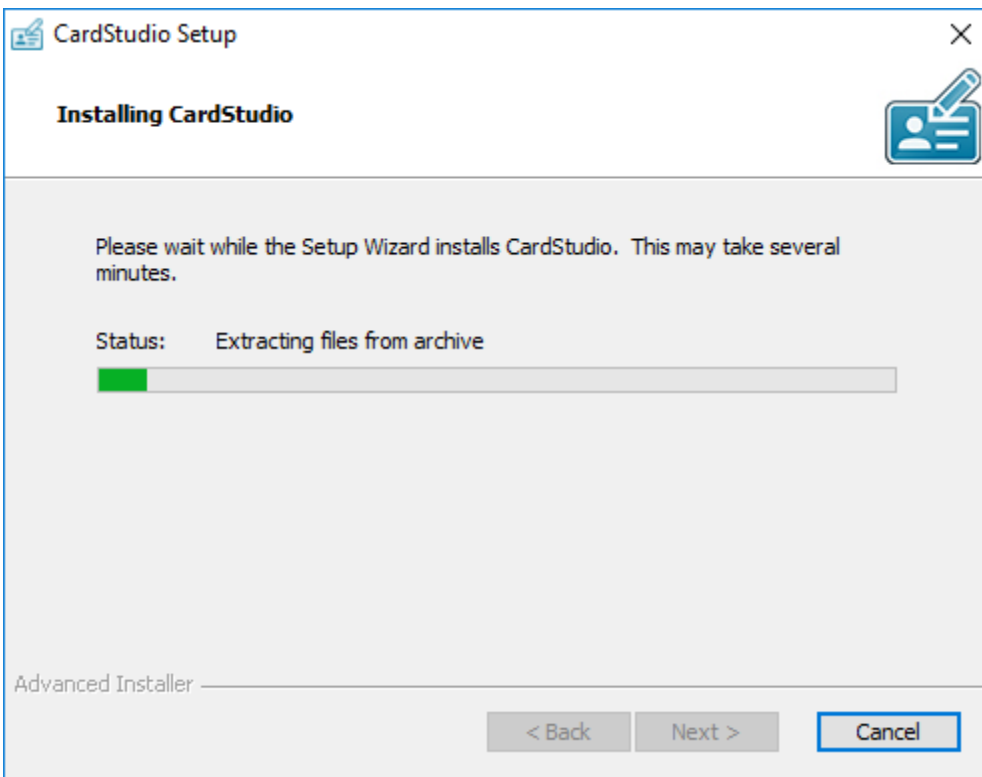
C.2 The “Installation Folder” tab: The second tab of the third step is to select the location where you would like to install CardStudio™ 2.0. You can select this by clicking on the browse button and browse to the desired location. If you do not have a specific location for CardStudio™ 2.0 leave the default location.



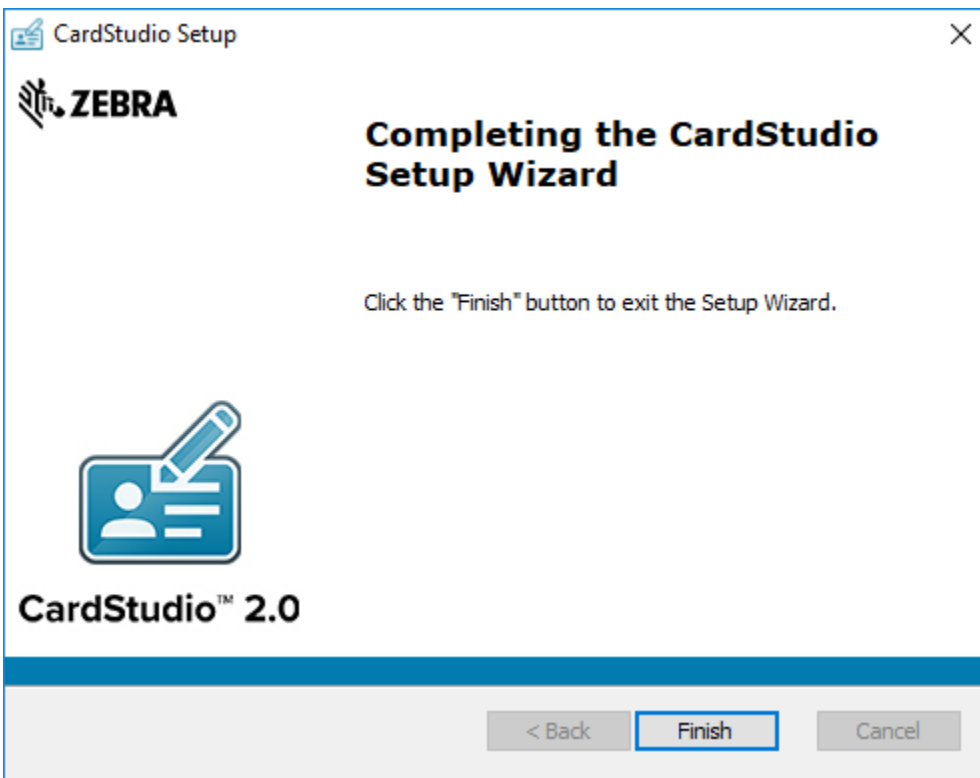
D. The installer is now ready to begin the CardStudio™ 2.0 installation. Click the “Install” button to begin the installation. If you want to review or change any of your installation settings, click on the “Back” button. Click “Cancel” to exit the installer.



E. The installation is now in process. This may take a couple of minutes. A pop-up window will appear to make sure that you want to run the installation. Click “Yes” to continue.



F. The installation is complete click the “Finish” button to exit the installer.



G. After completing the installation, 3 shortcuts will appear on your desktop. For CardStudio™ 2.0, only DesignStudio and PrintStudio are needed. When installing CardStudio Classic only one desktop icon will appear, only DesignStudio is needed. If you have CardStudio Standard or above, you will have 2 or 3 desktop Icons.

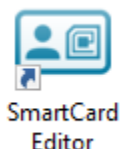
If you would like to start creating a new card layout, double-click on the “DesignStudio” icon:



If you would like to start a project and add card data, double-click on the “PrintStudio” icon:



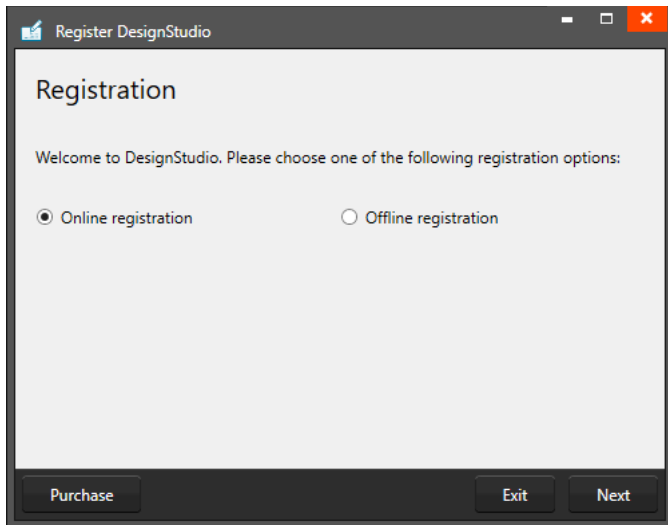
If you would like to start the SmartCard Editor to create an encoding file, double-click on the “SmartCard Editor” icon:



Before you start CardStudio™ 2.0, a license key is needed for the registration of an edition.

Registration of the Software Edition

When [DesignStudio](#) or [PrintStudio](#) starts for the first time, a registration window will pop-up, this is where the license key can be entered, and the CardStudio Software activated.

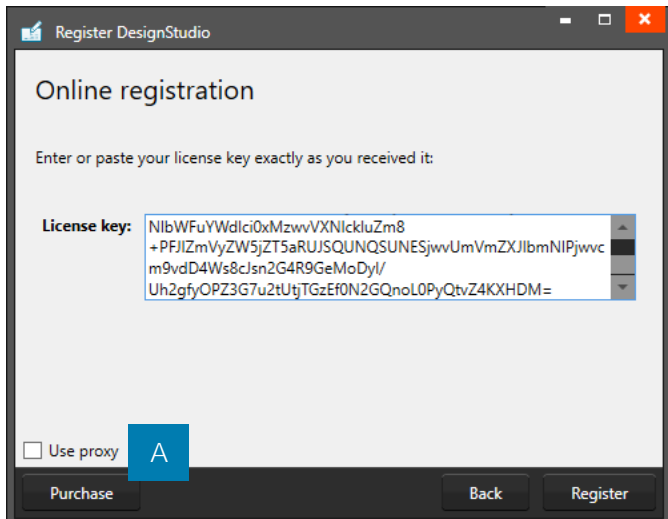


Example of the CardStudio registration window.

Registration of the Software

The first question will be about online or offline registration. Select '[online registration](#)'.

The license keys are for online registration. No access to the internet to activate your license keys? Contact your local reseller for more information on offline license keys.



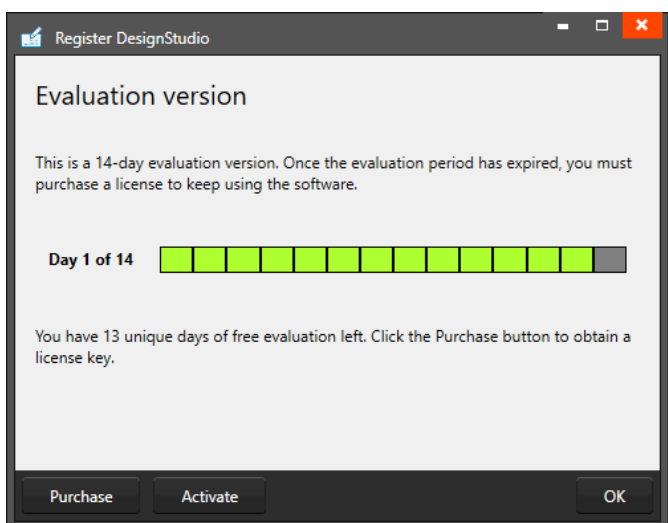
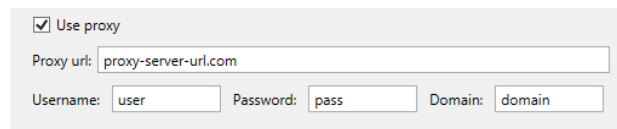
Example of the CardStudio online registration license key window with License Key entered.

Online Registration

You will be requested to enter a license key. The license key will be provided by our License Manager. The license key must be entered (copy-paste), when the key is valid, the software will start. The next time the software will not require the license key to be entered.

Test keys can have a time restriction and may expire on a given date. (View the License Manager User Guide for more information on license keys).

A. Check the "[Use Proxy](#)" box and enter the information needed to connect through a Proxy server in your network.



Example of a successful online registration of a CardStudio demo key.

Successful Registration

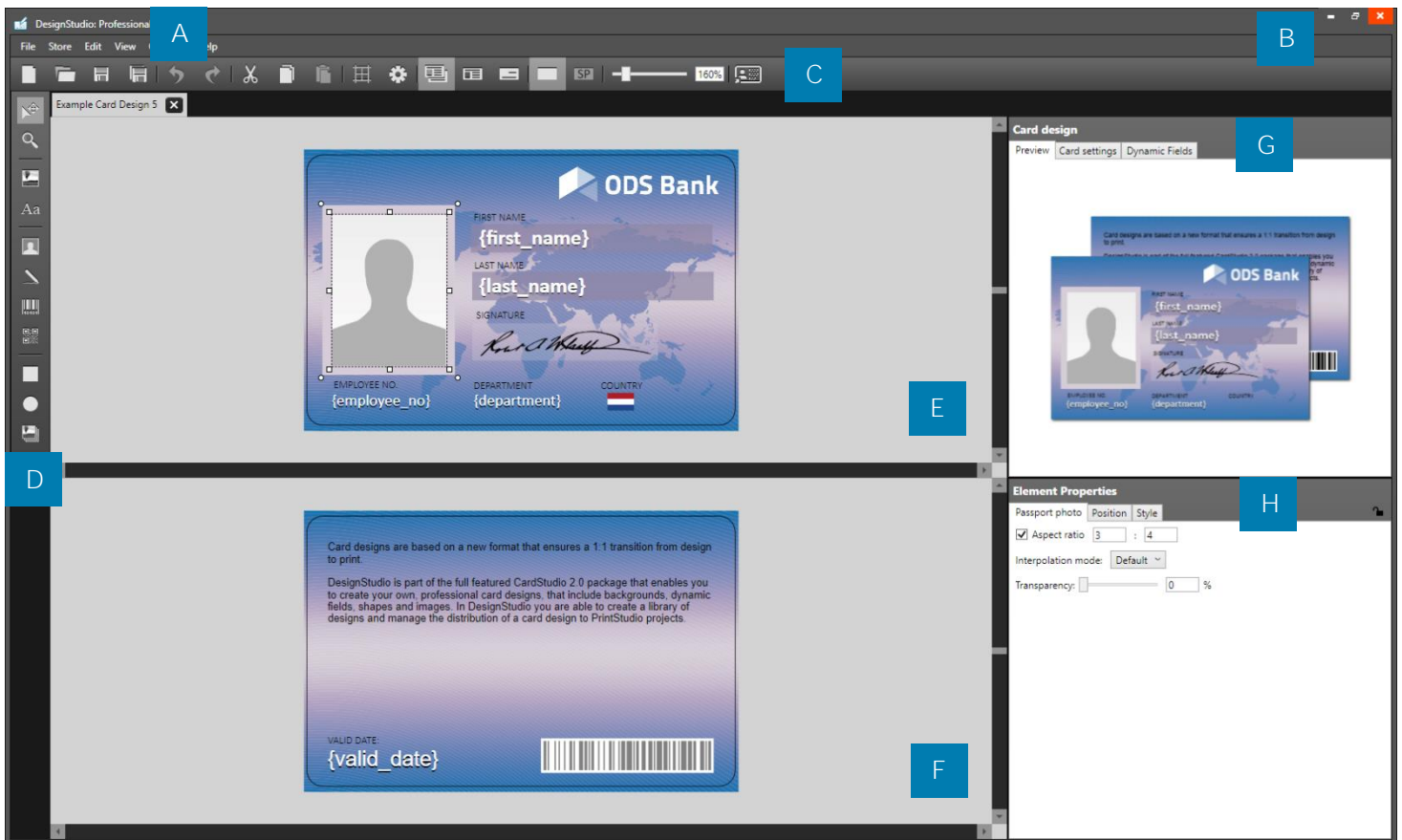
When you copy-paste the correct key you will see that the registration is successful. In this case it is a demo key that shows the evaluation time. Click the "OK" button to start working with CardStudio.

CardStudio™ 2.0 User Guide

DesignStudio



DesignStudio Interface



- A. Main menu
- B. Window menu
- C. Quick menu
- D. Toolbar
- E. Workspace/Canvas Front
- F. Workspace/Canvas Back
- G. Card Design:
Preview / Card Settings / Dynamic Data Fields
- H. Element Properties

DesignStudio

Navigation

DesignStudio makes the card design process as easy, fast and intuitive as possible. Accommodating the users in your organization, set with the task of designing the ID-cards. Using a user-friendly overview that shows all the tools needed and is easy to navigate.

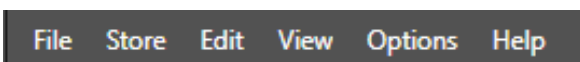
Window navigation

The window navigation gives the option to **A.** minimize, **B.** maximize or **C.** close.



Main Menu

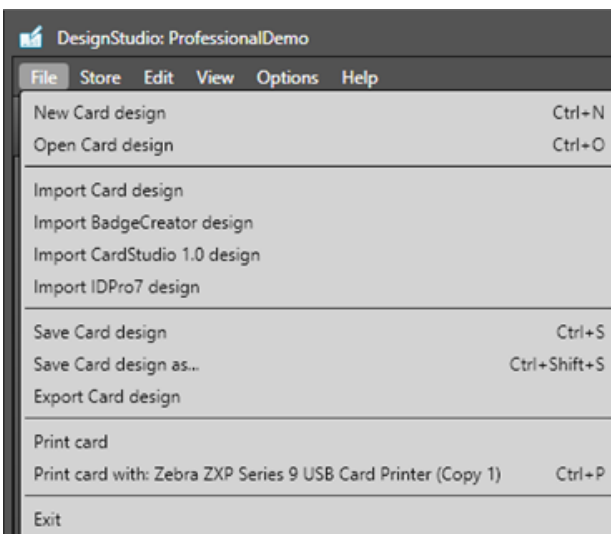
The main menu offers the options: “File”, “Store”, “Edit”, “View”, “Options” and “Help”



The main menu offers 4 sub-menus.

File

The first button offers the main functions needed to start, use, save and end CardStudio Design:

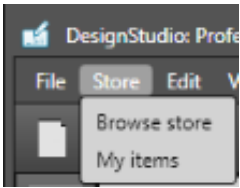


- *New Card design:*
Create a blank new layout for your ID card or use **CTRL+N**
- *Open Card design:*
Open an existing card design to adjust or use **CTRL+O**
- *Import BadgeCreator design:*
Import designs created in BadgeCreator.
- *Import CardStudio 1.0 design:*
Import designs created in CardStudio 1.0.
- *Import IDPro7 design:*
Import old designs created in IDPro7.

- *Save Card design:* To save a Card Design click here or use **CTRL+S**.
- *Save Card design as:* To save a Card Design using another name click here or use **CTRL+Shift+S**. It is also a simple way to create a duplicate of your design.
- *Export Card design:* Card designs can be exported from Design Studio as a zip file, ready to send or upload.
- *Print card:* The Classic Edition allows you to print your design from DesignStudio. Click to select a printer, set preferences and print.
- *Print card with:* When a default printer is setup, you can skip the printer preferences and print directly with the default printer. Click here, use the printer button in the quick menu or use **CTRL+P**.
- *Exit:* This button will let you exit DesignStudio.

Store

The second button offers the DesignStudio Store, you can find different types of example card designs ready to place in “My items” and download. Use the example card designs to get inspired or adjust for own use.

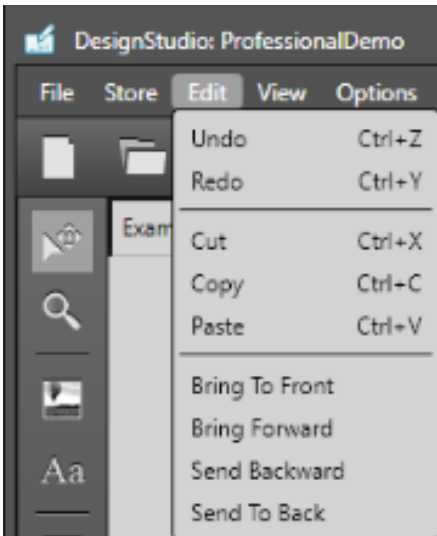


- *Browse store*: Open the store with a selection of card designs for you to choose from.

- *My items*: Overview of your selected card designs from the store, ready to download and use.

Edit

The third button will offer all the edit functions that you use during the design process:



- *Undo*: Undo previous design steps. You can use the short cut **CTRL+Z**.

- *Redo*: Redo design steps you undid **CTRL+Y**.

- *Cut*: To relocate an object (image, text, placeholder) on the canvas use the cut button. You can use the short cut **CTRL+X**.

- *Copy*: To copy an object (image, text, placeholder) on the canvas use the copy button. You can use the short cut **CTRL+C**.

- *Paste*: To paste a copied or cut object (image, text, placeholder) on the canvas use the cut button. You can use the short cut **CTRL+V**.

- *Bring To Front*: To bring an element to the front of the design.

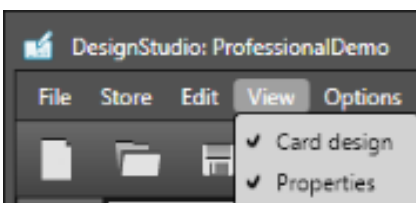
- *Bring Forward*: To bring an element one step forward in the design.

- *Send Backward*: To send an element one step backward in the design.

- *Send To Back*: To send an element to the back of the design.

View

The fourth button controls the CardStudio dashboard view, make specific views visible or invisible:

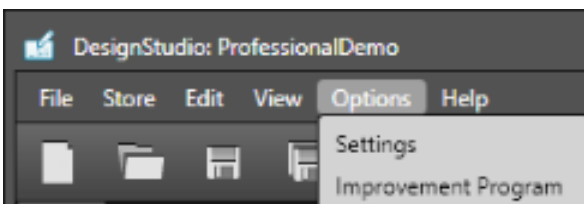


- *Card Design*: See the design preview, card settings and the dynamic fields.

- *Element Properties*: Adjust the different type of elements by clicking on an element and use the Element Properties to make changes.

Options

The fifth button controls the CardStudio dashboard view, make specific views visible or invisible:

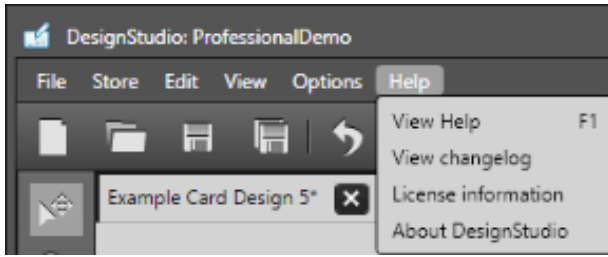


- *Settings*: Change Design Studio settings like enabling the grid, changing the language or the path to save card designs to.

- *Improvement Program*: Help optimize the quality of DesignStudio, by participating anonymously in the DesignStudio Improvement Program.

Help

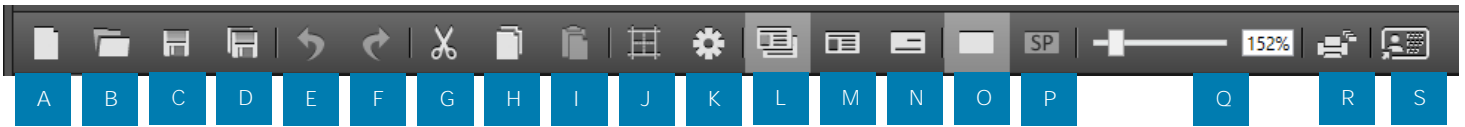
The Help button offers information about DesignStudio and an online user guide:



- *View Help*: Opens the online user guide or use the shortcut **F1**.
- *View changelog*: Shows the changes and updates made in the software.
- *License Information*: Shows the specific license information, the edition, the reference, versions and activation date.
- *About DesignStudio*: Pop-up with version and developer information.

Quick Menu

The Quick Menu offers a selection of large visual buttons often used in the card design process, allowing for quick and easy navigation.



A. Create new Card design

Starts a new Card design.

B. Open existing Card design

Open an existing Card design.

C. Save

It is important to save your layout while designing. Quickly saves the card design.

D. Save as

Saves your design under another name.

E. Undo

Undo design steps you made.

F. Redo

Redo design steps you made.

G. Cut

To place an element somewhere else, use this button to cut and replace the image. Just select the element you want to replace, click on the cut button and then click on the paste button to place it somewhere else.

H. Copy

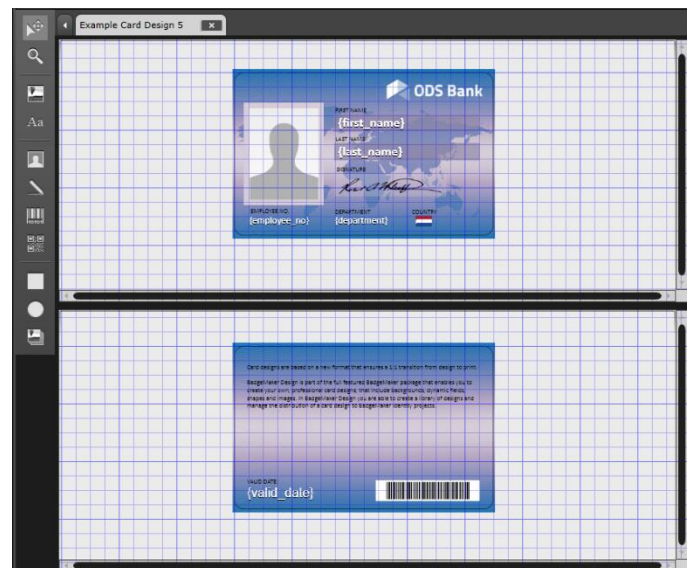
To copy elements, select the element, then click on the copy button. The element is ready to be pasted anywhere on the front or back of the design canvas.

I. Paste

If you cut or copy an element, click on the paste button to place the element on the front or the back of the canvas.

J. Show/hide grid

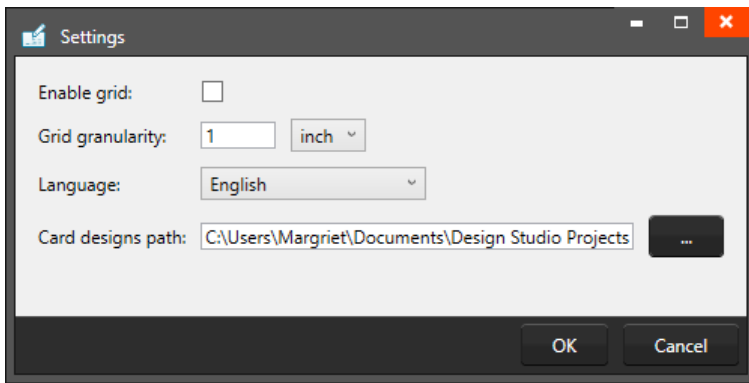
Make a grid visible or invisible. A grid can help you be more precise with your design. Having the grid to align elements. When the grid option is selected it will auto-snap elements in place whilst using your mouse. Once placed, the arrow keys allow free movement of elements.



K. Settings

Settings gives a couple of options:





- Check or uncheck the enable grid checkbox to enable or disable the grid.
- Determine the scale of the grid.
- Set the language used in the designer. Languages supported: *English, French, Spanish, German, Polish and Dutch*. Other languages will be supported soon.
- Determine your own project path, where you would like to open and save your designs.
- To confirm settings, click “OK”, to cancel settings, click “Cancel”.
- To exit settings, click “X”.

L. Show front and back designers

View the canvas for the front and back side of the layout.

M. Show front designer only

View the canvas for the front side of the layout.

N. Show back designer only

View the canvas for back side of the layout.

O. Design layer

This is the base layer to work in to design your (YMCK or monochrome) card layout.

P. Specialty panel

This is a specialty panel to work in if you want your specialty panel (like an pearl panel) to have a certain design or pattern. (Be aware that a specific printer and ribbon are needed to add specific layers with a design or pattern.)

Q. Scale slider

Use this slider to zoom the canvas view in or out.

R. Print Card Design

This Quick menu button is only available in the CardStudio CLASSIC edition and allows you to add one record of data and print your card design from Design Studio. You can only use Zebra printers to print you card designs.

S. PrintStudio

This Quick button lets you open PrintStudio and continue with your card production process.

DesignStudio

Start a Card Design

DesignStudio

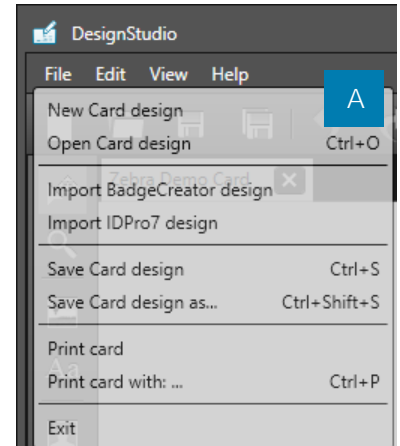
Start a Card Design

To start and work on a card design, start a new design or open an existing design.

New Card Design

A. Go to “File” in the main menu and click on “New Card design”.

Or click on the icon below in the quick menu:



When clicking on the new card design link or button a setup window will pop-up.

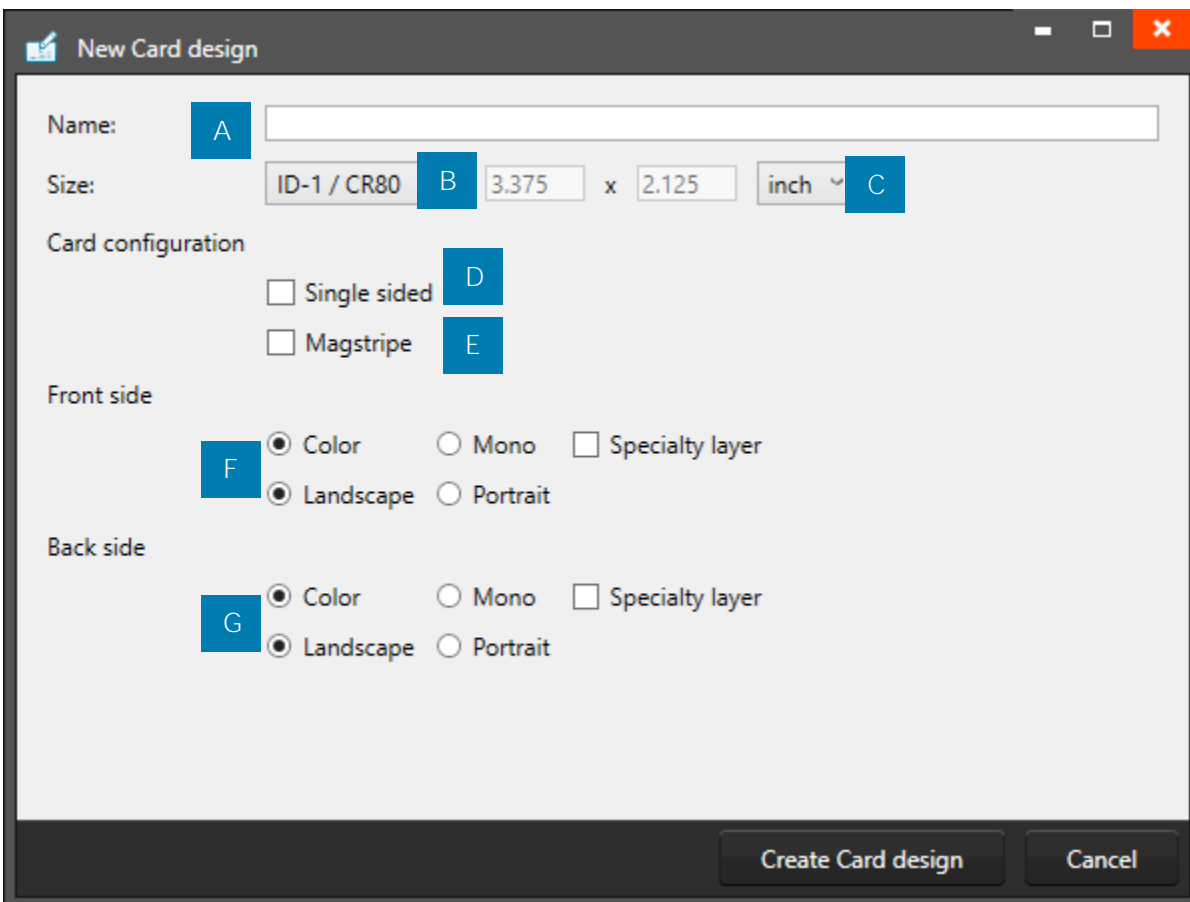


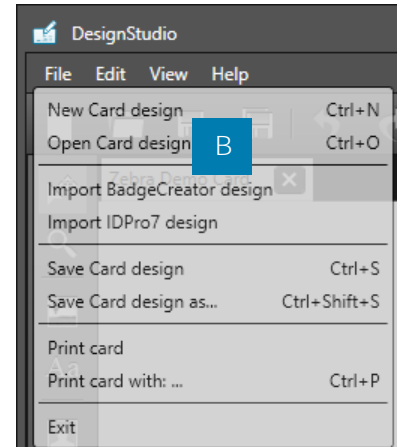
Fig. Example of new card design setup window.

- A. Enter the name for the layout. The exclamation mark at the end appears when the field is not filled, or the name already exists. The ‘OK’ button is not accessible until a unique name is given.
- B. The size of the card can be chosen from a drop down.
- C. Define a custom size for your layout.
- D. Check this box if the design is single sided.
- E. Check this box if the design is for a card with MAGstripe.
- F. Check the ribbon type (color or mono), the orientation of the design for the front and the type of layers.
- G. Check the ribbon type (color or mono), the orientation of the design for the front and the type of layers.

Open existing Card Design

B. To open an existing Card Design go to “File” in the main menu and click on “Open Card design”.

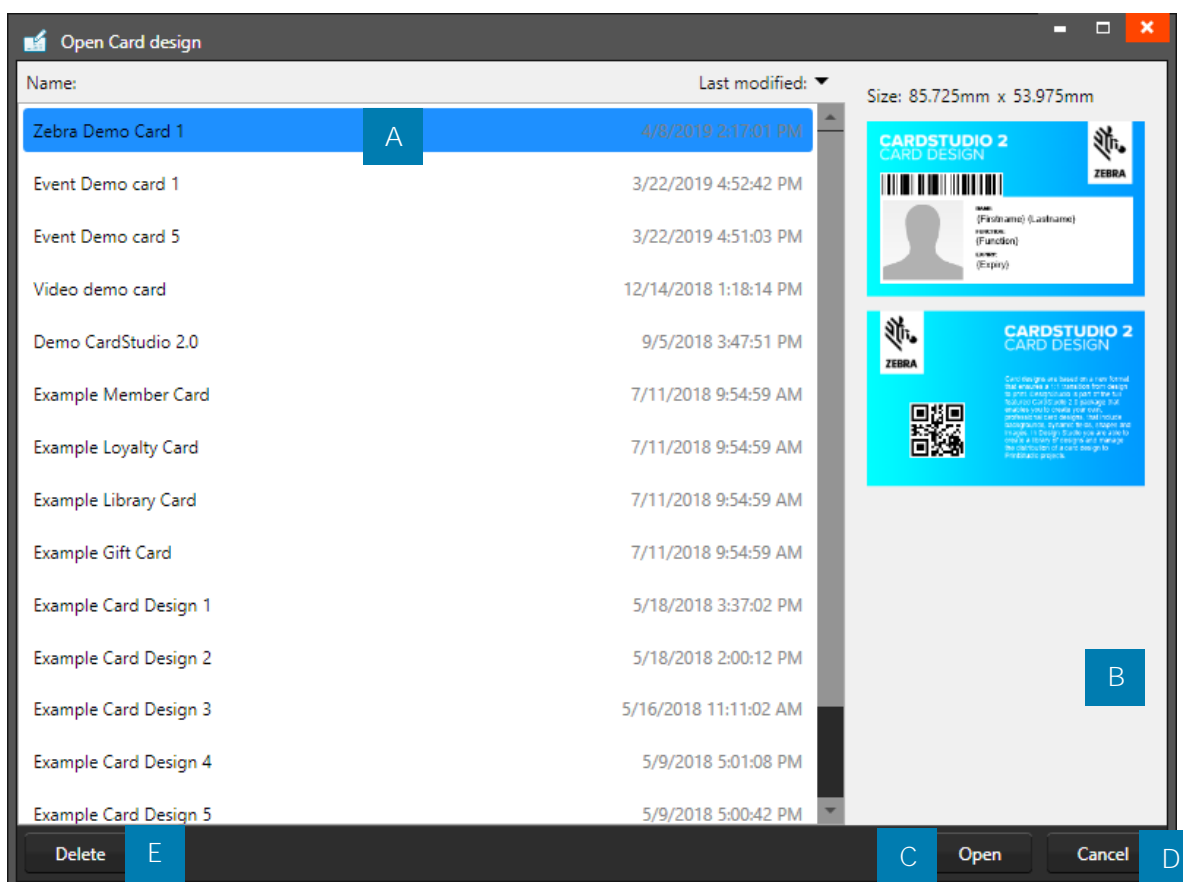
Or click on the icon below in the quick menu:



When clicking on the new card design link or button, a selection window will pop-up.

All available existing designs are displayed, select a layout for editing.

You can open multiple layouts at the same time.



Example of the Open Card design pop-up window.

- A. Select one of the existing designs.
- B. View the layout of the design selected.
- C. Open the selected design.
- D. Cancel opening a design.
- E. Delete a selected design.

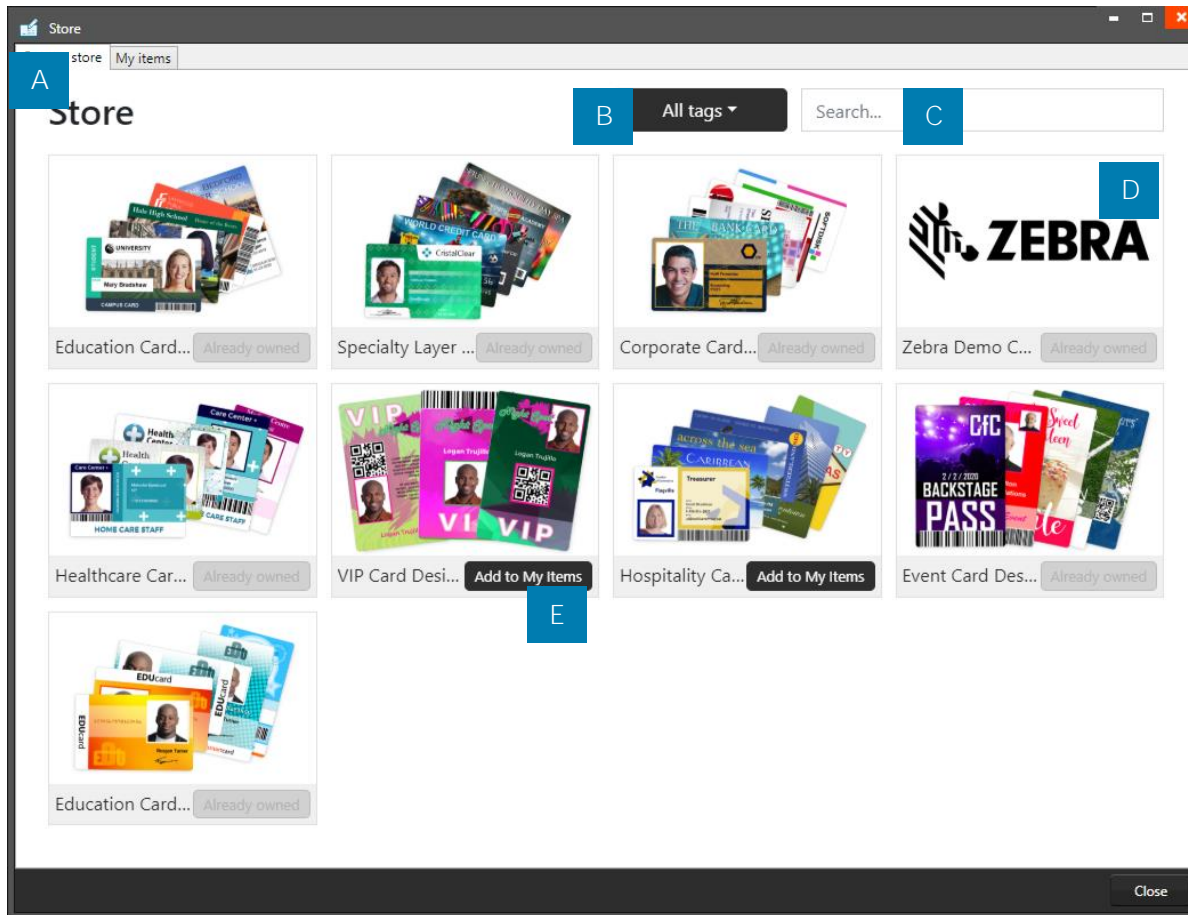
DesignStudio

Card Design from the Store

Browse the Store to select and download one of the example card design to start with. Get inspired and adjust the example designs to your own liking.

Browse the Store

To browse the store, go to “Store” in the main menu and click on “Browse store”.



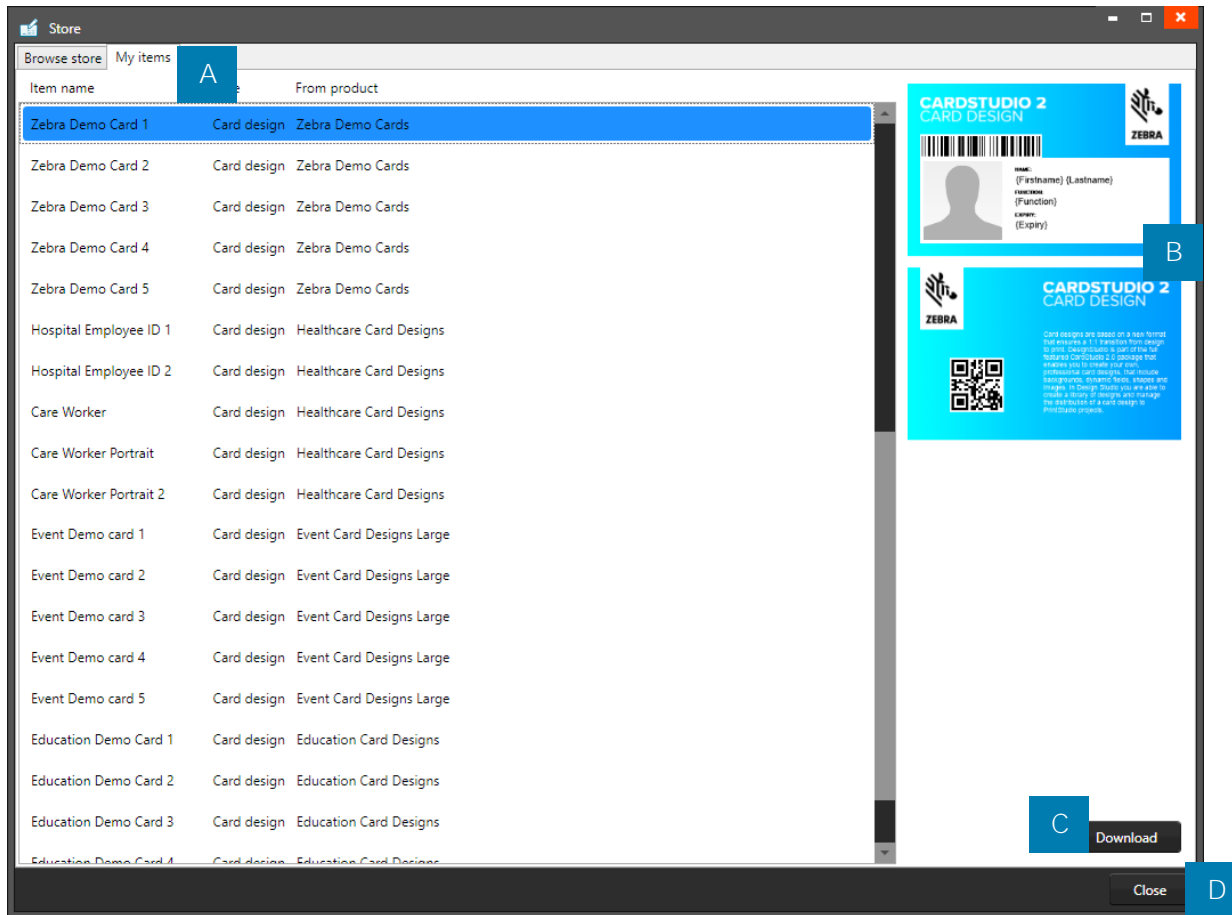
- A. Store: Overview of all the card design bundles available to select and available add to “My items”
- B. Filter the overview of card designs by specific tags. Use the drop-down button to select a tag.
- C. Search card design bundles by name.
- D. Click on the bundle image to learn more about the bundle and its card designs.



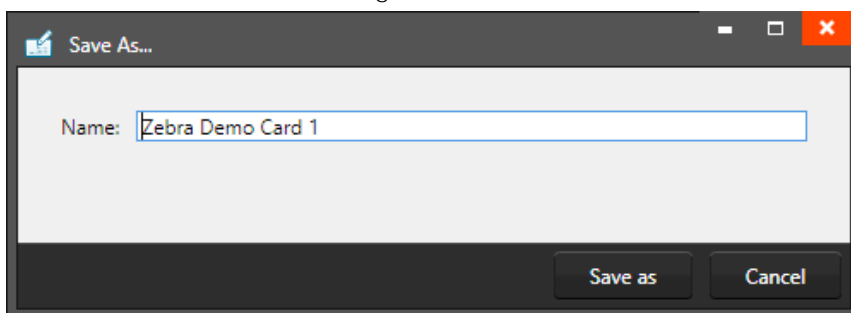
- E. Click on “Add to My items” to add the collection of card design and make them available for download.

My items

All the selected card designs added from the Store can be found in the “My items”. These card designs will always be available for you as specific customer ready for download.



- A. My items: overview of all the selected card designs from the Store ready to select and download.
- B. Preview images of the selected card design.
- C. Click on “Download” if you would like to download the selected card design to your Design Studio.
Give the downloaded card design a name.



After saving the design is opened automatically in DesignStudio. The card design is now ready be used in your CardStudio 2.0.

- D. Click on the “Close” button to close the My items pop-up.

DesignStudio Card Design View

Preview, Card Settings and Dynamic Field

DesignStudio

Card Design Menu

The Card Design window presents three tabs: [Preview](#), [Card Settings](#) and [Dynamic Fields](#).

Preview

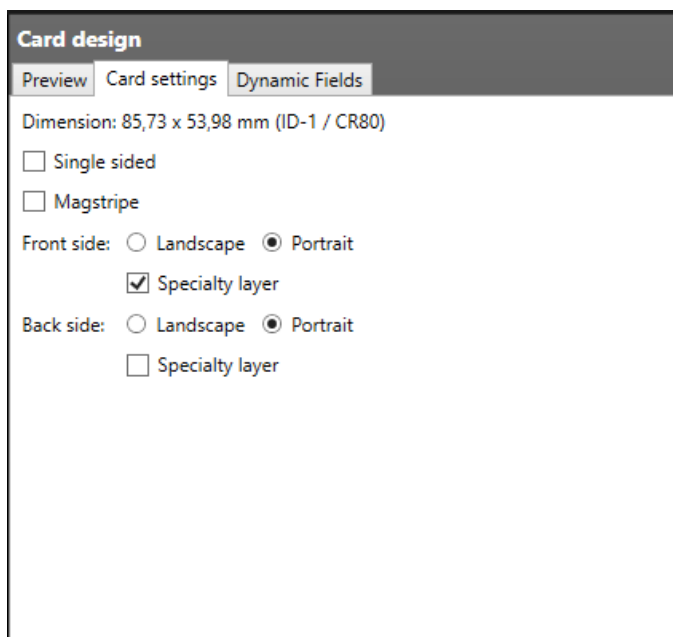
The Preview tab shows a preview of the card; the preview allows you to toggle from front to back by clicking the image.



Example of the Preview tab in the Card Design view.

Card settings

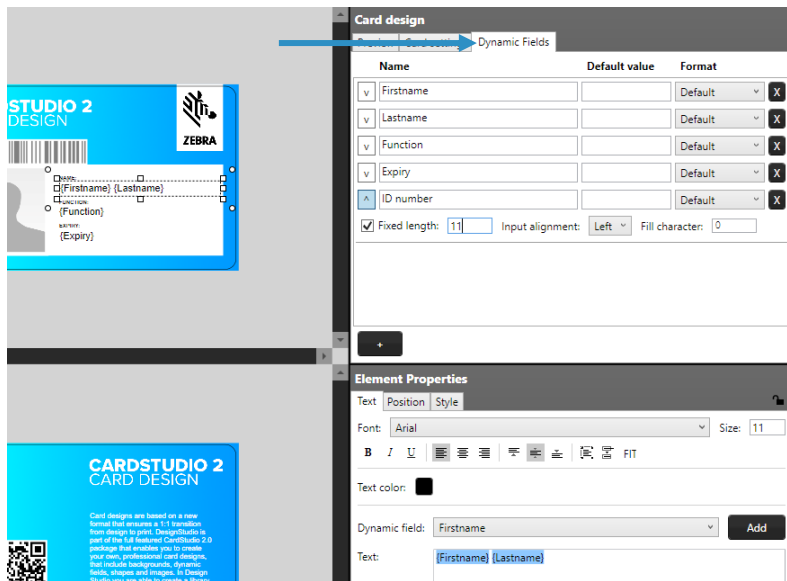
The Card Settings tab offers information on the card design settings. Change or edit the settings of the card design. The elements already placed will not be affected, when for example changing a layout from landscape to portrait.



Example of the Card Settings tab in the Card Design Menu.

Dynamic Fields

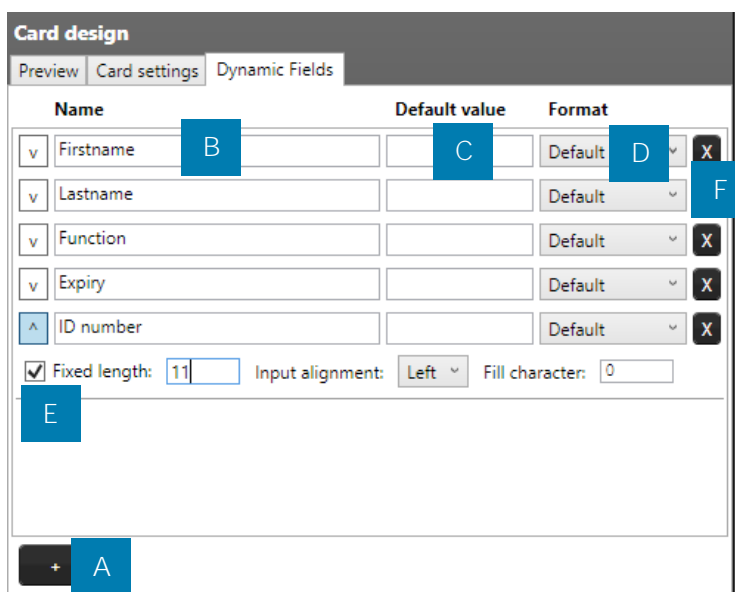
With the start of a new card design it is important to create the needed dynamic fields for a card design. Dynamic data represents data that need to be on a card design for different card holders. For example: First name, Last name or Department. When dynamic data is linked to project data, the dynamic data placeholder will be replaced with the card holder data.



The tab “Dynamic fields” in the card design view will give a list of the dynamic fields in the layout. When a text element is added to the card design, and the text in the text element has a name {between curly braces}, DesignStudio will detect this as a dynamic field name and will be added to the list of Dynamic fields.

The user can delete, change and edit the field names and enter default values to be used as preview.

Fig. Example of the Dynamic Fields settings tab in the Card design menu.



- A. Add a new dynamic field to the list by clicking on the “+” button.
- B. Enter a dynamic field name by clicking on it and rename it from, for example, “Dynamic Field 1” to “first_name”.
- C. It is possible to enter a default value for the fields. For example, the default value for “department” can for example be “Sales”.
- D. A dynamic field can have a certain format, the dropdown menu offers a couple of options. For example, the value of a certain dynamic text field needs to be “CAPITALIZED”.
- E. It is possible to give dynamic fields a fixed length, input alignment and a fill character. This helps when the dynamic data has to be a specific fixed length, for example ID numbers or for specific Magstripe input. Click on the arrow before the dynamic field to open the extra options. The fixed length gives the option to set the number of characters, input alignment allows you to set the input from left or right and fill character lets you fill the empty space with a specific character.
- F. Click on the “X” button to delete a dynamic field.

DesignStudio Elements

DesignStudio

Elements

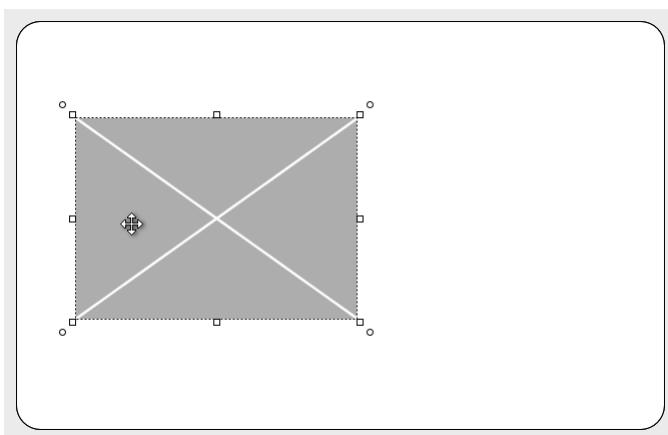
Element Tool Menu

To create and edit a design you need to work with the toolbar setup on the left side. The tool bar offers the following functions:



A. Select/move tool

The arrow tool is used to select an element. This tool also allows you to move an element in the layout. When an element is selected a move icon appears on the mouse over and can be used to move or resize an element.

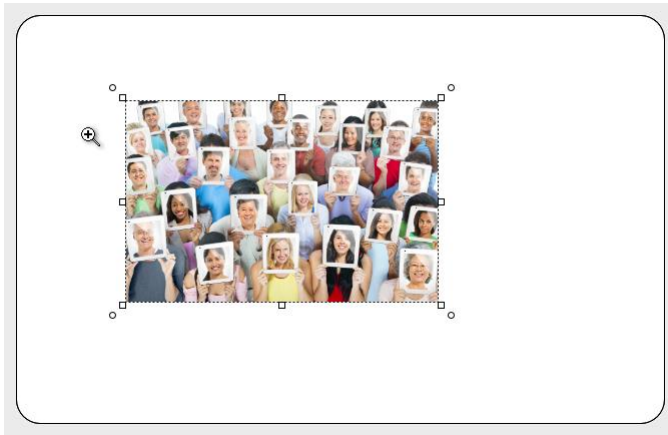




B. Zoom tool

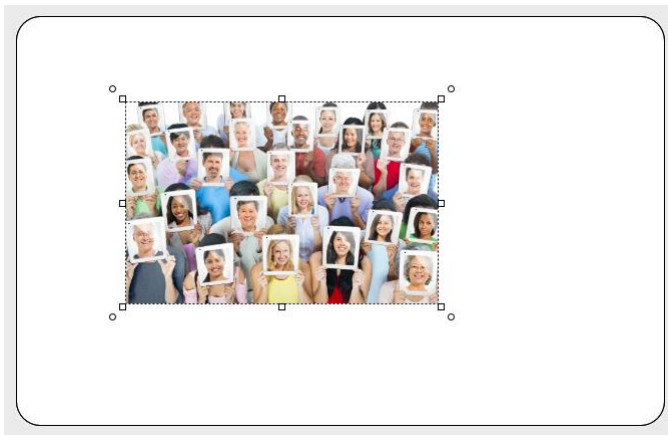
The zoom function is enabled and will zoom in on the layout.

At a click of the mouse the zoom is increased one step, when using CTRL and a click of the mouse the zoom is decreased by one step.



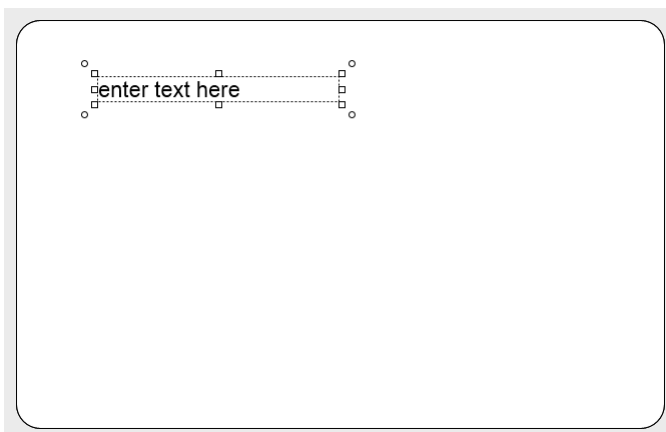
C. Image tool

The image tool is used to place an image element in the layout.



D. Text tool

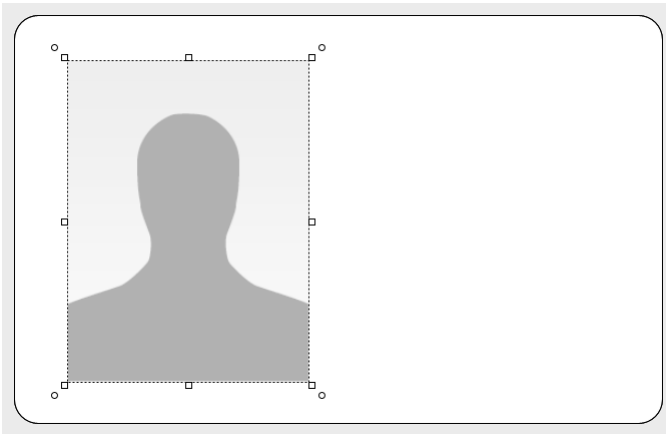
The text tool can be used to add static and dynamic text to the design. Use the Text Element properties to edit and add text and/or dynamic text to the box. Select the element and go to Element properties to edit the text in the text editor.





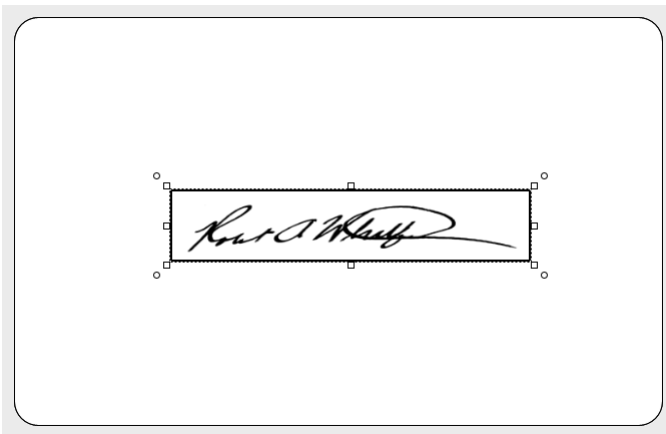
E. Passport photo tool

The Photo element is used to place a placeholder for the passport photo on the layout. The photo element can scale within proportions. When the design is linked to data in for example a PrintStudio project, the placeholder will be replaced by a real passport photo from the project data.



F. Signature tool

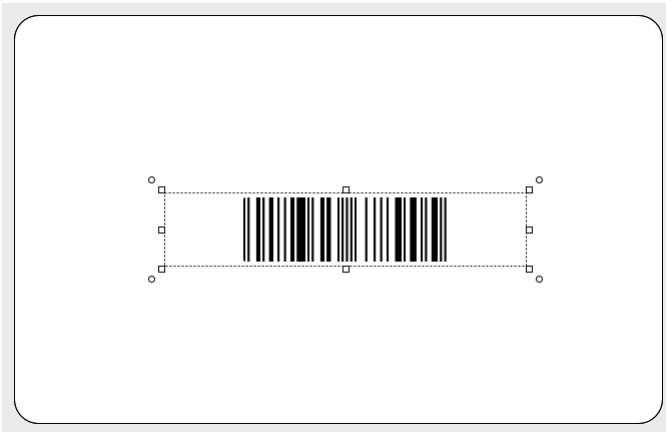
The Signature element is used to place a placeholder for the signature on the layout. The signature element can scale within proportions. When the design is used and connected to data in for example a PrintStudio project, the placeholder will be replaced by a real signature from the project data.





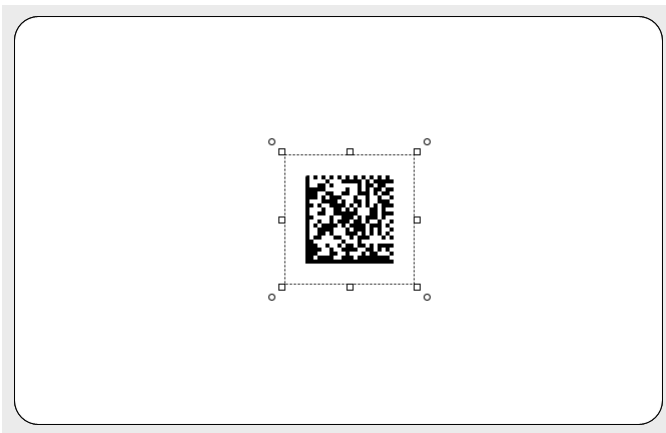
G. [Barcode tool](#)

The Barcode element is used to place a placeholder for a barcode on the layout. The element can scale within proportions. Different types of barcodes are available to select in the element properties. Barcodes that are scaled too small might not work. Test barcodes in your design with the data before continuing.



H. [2D Barcode tool](#)

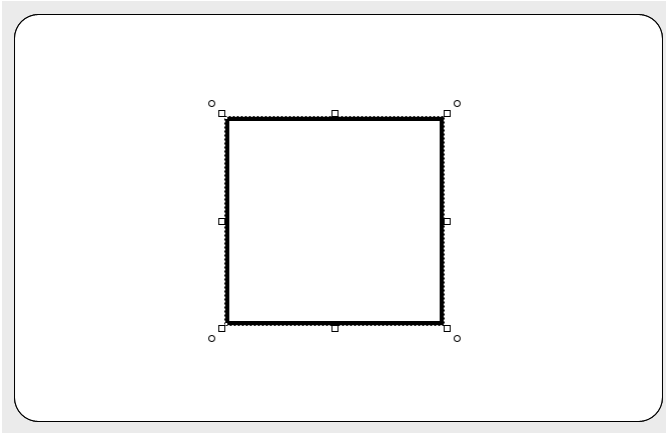
The 2D Barcode element is used to place a placeholder for a 2D barcode on the layout. The element can scale within proportions. When the design is linked to data in a PrintStudio project, the placeholder will be replaced by a real 2D barcode. There are different types of 2D barcodes available to select in the element properties.





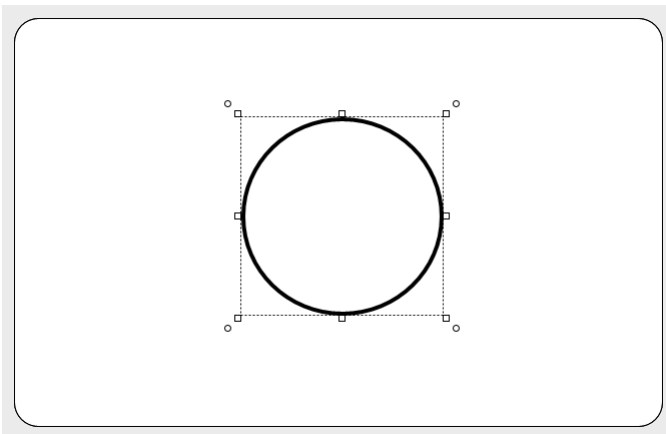
I. [Square tool](#)

The rectangular element can be used for frames and boxes in the layout. Line option: To draw a line with the square tool, select the square element and go to the element properties. Enter the desired height and width of the line. Switch to the Style tab, set border thickness to 0 and add the background color of your choice.



J. [Circle tool](#)

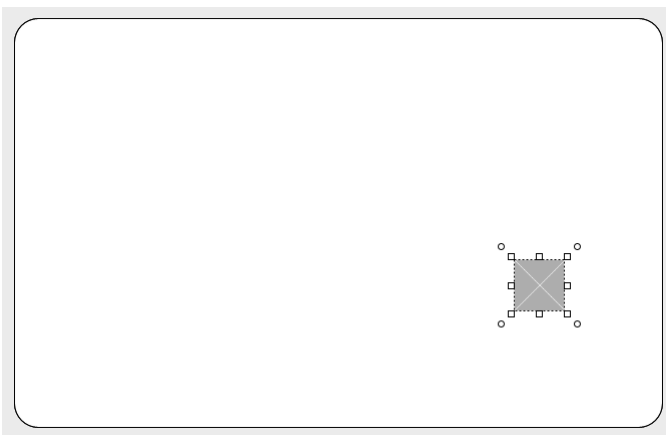
The circle element is used for elements like circles and ellipsoids.



K. [Dynamic logo tool](#)

The Dynamic logo element is used to place a placeholder for a dynamic logo on the layout. The element can scale within proportions. When the design is linked to data in a PrintStudio project the placeholder will be replaced by one of the dynamic logos.

For more explanation on the dynamic logo read [Dynamic logo element properties](#).

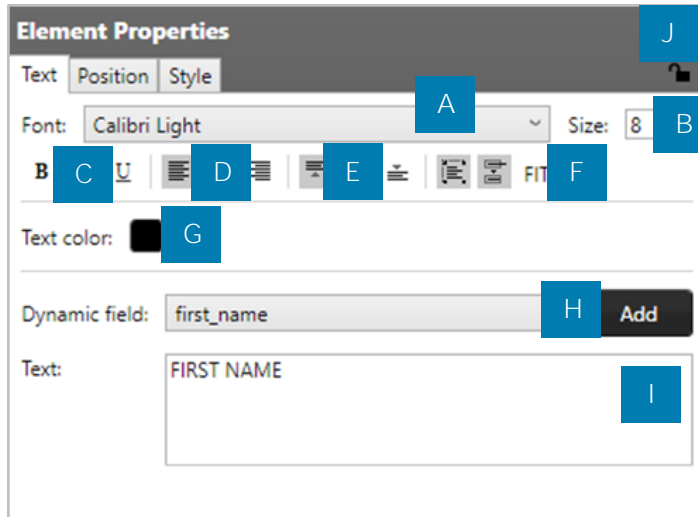


Element Properties

The element properties window has three tabs:

[Element edit](#), [Element position](#) and [Element style](#) tab.

Depending on the type of element, this tab will allow the user to view and/or edit the information of the element. When the values are changed, they are reflected immediately in the design; there is no need to hit an enter button. The user can make changes in one window and observe the result in the other window at the same time and vice versa. It depends on the preference of the user to create the layout in a graphical environment or a data element environment.



Example of the Text element properties

Text element properties

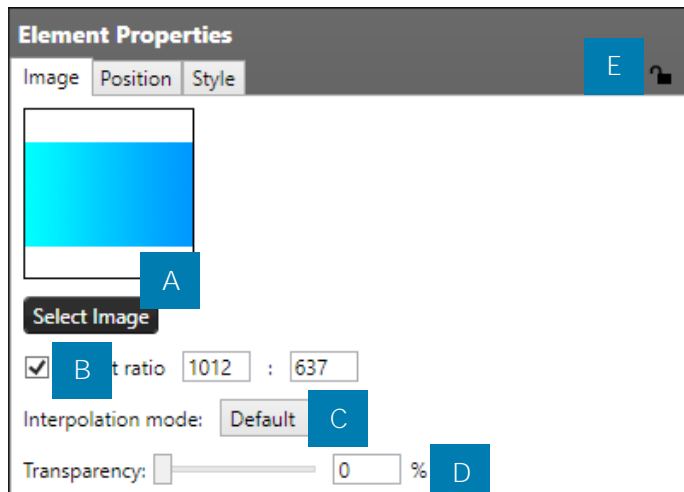
- A. Change Font
- B. Change Size
- C. Edit style into **bold**, *italic* and underlined.
- D. Outline the text left, center or right
- E. Align the text to top, center or bottom of the box.
- F. Wrap text automatically, let text be cut off when being too long or set the text to automatically fit the text box.
- G. Change text color by clicking the Text color box
- H. Choose to add a dynamic field to the text box below by selecting one from the drop-down menu and clicking on the “Add” button.
- I. Enter all your text here.
- J. Click the lock icon to lock an element. A locked element cannot move or be selected during the design process.



: element is not locked.



: element is locked.



Example of the Image element properties

Image element properties

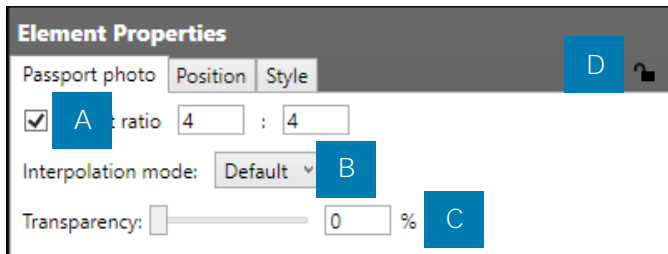
- A. Select an image from your computer by clicking on the “Select Image” button.
- B. Choose to bind the ratio
- C. As a specialty feature you are able to use the “Interpolation mode” to control image quality during scaling. There are 4 interpolation modes you can choose from:
 - Default
 - Bicubic
 - Bilinear
 - NearestNeighbor
- Keep this setting “Default” when you do not have experience with the interpolation modes.
- D. Use the slider or enter a percentage to change the transparency of the image.
- E. Click the lock icon to lock an element, so it cannot move during the design of the card.



: element is not locked.



: element is locked.



Example of the Passport Photo element properties

Passport Photo element properties

- A. Check box to bind the element to a certain ratio or adjust the ratio.
- B. As a specialty feature you are able to use the “Interpolation mode” to control image quality during scaling. There are 4 interpolation modes you can choose from:

Default
Bicubic
Bilinear
NearestNeighbor

Keep this setting “Default” when you do not have experience with the interpolation modes.

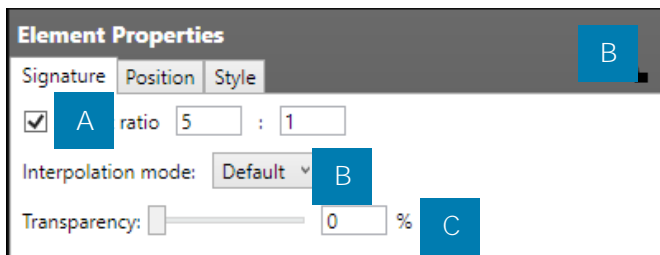
- C. Use the slider or enter a percentage to change the transparency of the image.
- D. Click the lock icon to lock an element, so it cannot move during the design of the card.



: element is not locked.



: element is locked.



Example of the Signature element properties

Signature element properties

- A. Check box to bind the element to a certain ratio or adjust the ratio.
- B. As a specialty feature you are able to use the “Interpolation mode” to control image quality during scaling. There are 4 interpolation modes you can choose from:

Default
Bicubic
Bilinear
NearestNeighbor

Keep this setting “Default” when you do not have experience with the interpolation modes.

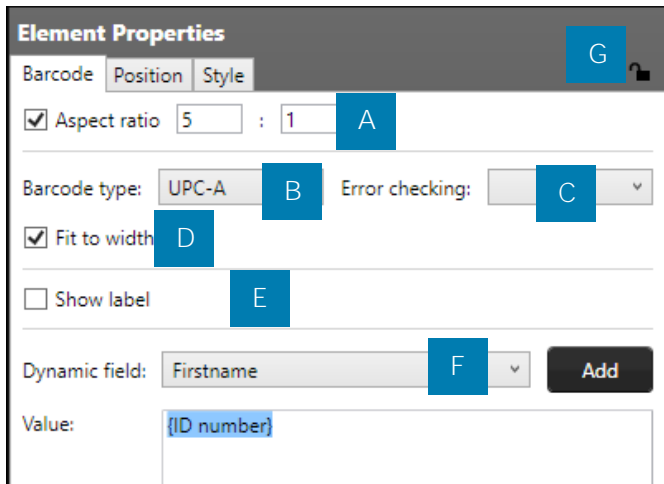
- C. Use the slider or enter a percentage to change the transparency of the image.
- D. Click the lock icon to lock an element, so it cannot move during the design of the card.



: element is not locked.



: element is locked.



Example of the barcode element properties.

Barcode element properties

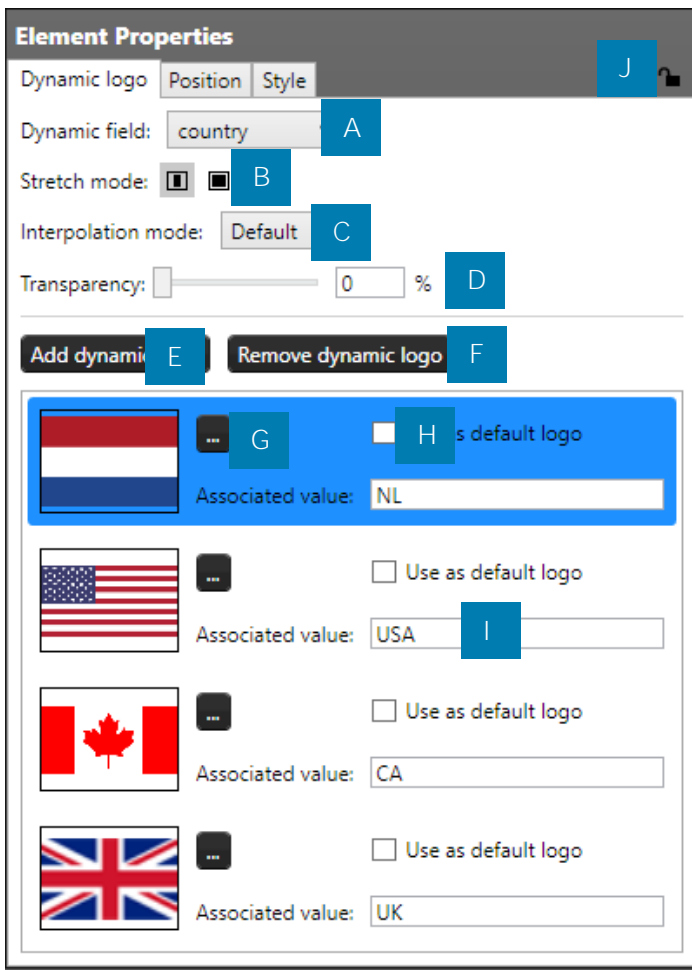
- A. Check this box to bind the element to a certain ratio
- B. Choose a barcode type by clicking on the drop-down menu and select the barcode type.
- C. Select a form of error checking from this list to ensure a correct working barcode.
- D. Check this box to fit the barcode to the complete width.
- E. If you want the barcode to show a label with the actual data, check the show label check box.
- F. Select the dynamic field that you want the barcode to reflect, click the “Add” button to add the dynamic field to the value. Barcodes cannot represent all data, make sure the data can be translated to the selected barcode type.
- G. Enter a default value or combine it with a dynamic field.
- H. Click the lock icon to lock an element, so it cannot move during the design of the card.



: element is not locked.



: element is locked.



Example of the dynamic logo element properties.

Dynamic logo element properties

- A. Select the dynamic field that needs to reflect the dynamic logo.
- B. Select if you want the logo to be the correct ratio or if you want it to fill the whole field.
- C. As a specialty feature you are able to use the “Interpolation mode” to control image quality during scaling. There are 4 interpolation modes you can choose from:
 - Default
 - Bicubic
 - Bilinear
 - NearestNeighbor
- D. Use the slider or enter a percentage to change the transparency of the image.
- E. Click on this button to add another dynamic logo.
- F. When you want to delete a dynamic logo select the logo you want to delete first and then click on the “Remove dynamic logo” button.
- G. Select an image for your dynamic logo by clicking on this button.
- H. Check the default box if you want this image to show up as the default dynamic logo image.
- I. Add the associated value of your dynamic logo into this field.



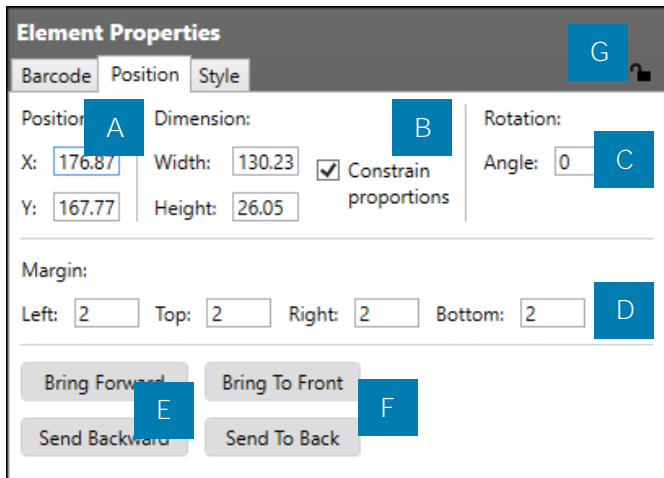
J. : element is not locked.



: element is locked.

Element Position

To change the position of an element, use the arrow tool or select the element and click on to the second tab “Position” in the Element properties. Here the position, dimension and margin of an element can be adjusted, rotated or arranged to the back or front.



Example of the position of an element.

- A. Determine the position of the used element.
- B. Scale your element giving a width or a height. Check the check-box to constrain proportions.
- C. Rotate the element by entering an angle number, 0 to 360.
- D. Give elements margin space, enter space for the left side, top, right and bottom of the element.
- E. To arrange an element one step forward or backward against the other elements, click on these buttons.
- F. To bring an element completely on top or to the background, click on these buttons.
- G. Click the lock icon to lock an element, so it cannot move during the design of the card.



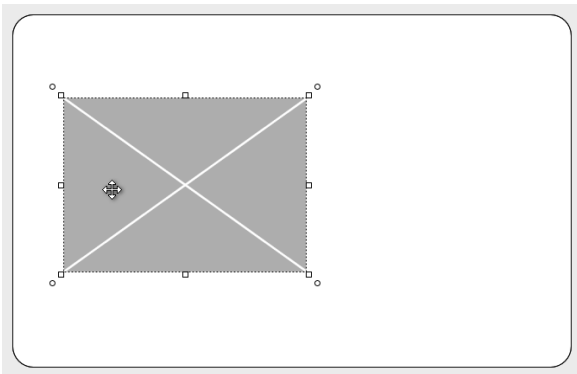
: element is not locked.



: element is locked.

Resize and rotate elements on the canvas

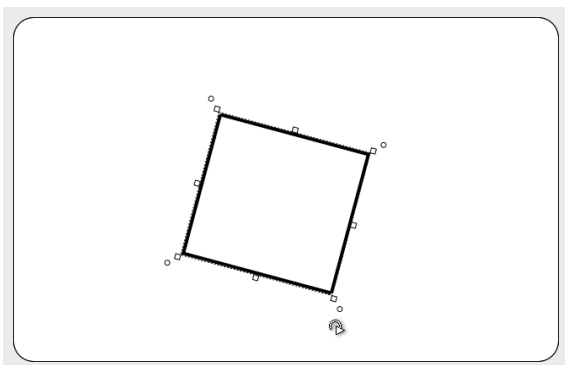
The canvas represents the front and/or back of the card layouts and can be used to place, edit and/or move elements. When an element is selected the size of the element can be changed using the arrows/squares at the corners of the elements. The element can also be rotated using the circles at the corner of the elements.



Example of an image element placed on the front of a card.

Increase/decrease the width or height of an element. The arrow appears when the mouse is hovered over/near the edge of the element.

The height and width of the element can be changed at the same time. The arrow appears when the mouse is hovered over/near one of the corners of the element.



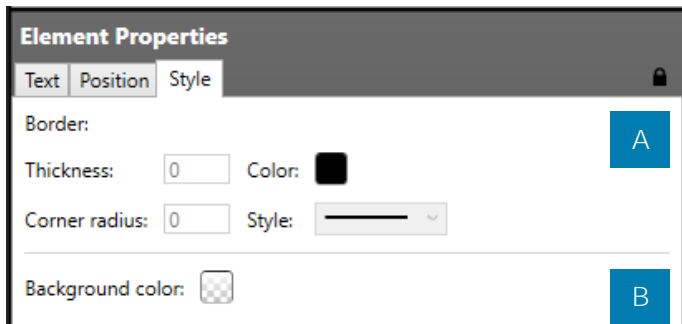
Example of a rotated shape element placed on the back of a card.

The orientation of the element can be rotated when the arrow appears. The arrow appears when the mouse is hovered just outside one of the corners of the element.

Element Style

Border & Background

To change the style of an element, click on the element and go to the third tab “Style” of the Element Properties view.



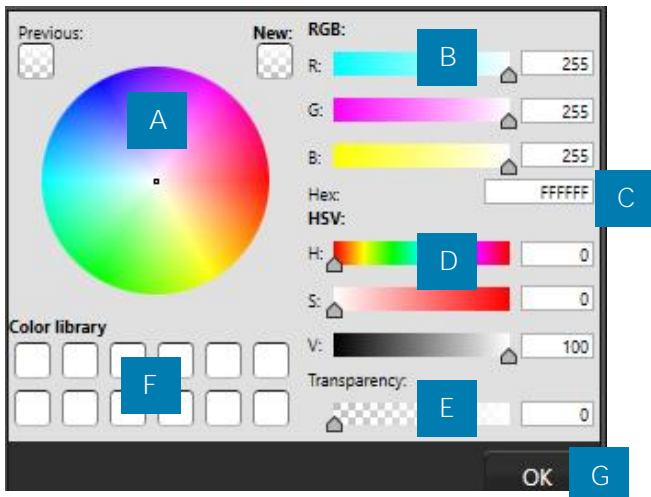
Example of the style tab

- A. Add a border, change the thickness of the of the border, its color or style.
- B. Add a background color.

Color & Transparency

Choose a color for the border or the background using the color pop-up window. There is a selection of color options to choose from. Use the RGB, Hex or HSV code to select a specific color. You can use:

- A. The color picker.
- B. Use the RGB sliders or type in the percentage.
- C. Fill in the Hex code for the color.
- D. HSV sliders or type in the percentage.
- E. Add Transparency or type in the percentage.
- F. Use a color library for specific colors. Select an empty slot in the library and set your color using the options A - E.
- G. Click on “Ok” when you have selected the correct color and transparency of the border or background.



Example of the Color pop-up menu

DesignStudio Print Card Design

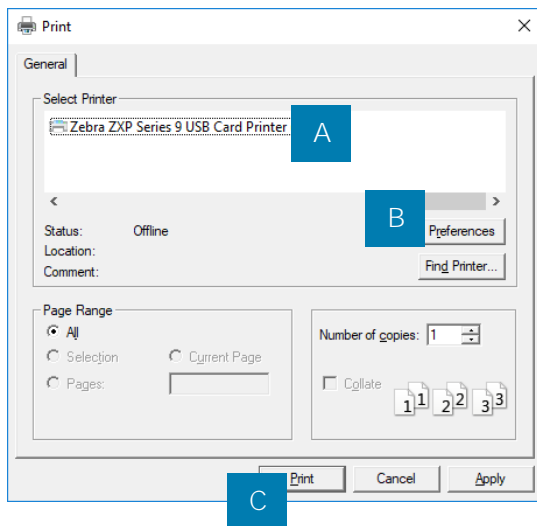
DesignStudio

Print a Card Design

With the CardStudio Classic Edition it is possible to design and print your card design from DesignStudio using the Zebra Card Printers. After the design process click on the “Print” button in the Quick Menu:



When a printer is not setup, a printer setup window appears the first time:

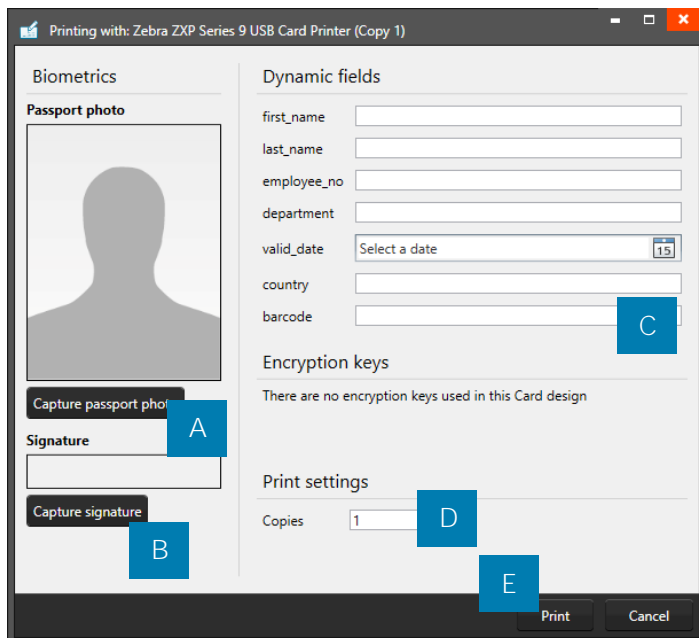


A. Select the Zebra Card Printer you would like to print your card design with.

B. Set your printer preferences, make sure the correct default settings of the printer driver have already been set.

C. Click on the “Print” button to proceed. To change the printer settings for the quick menu print button, go to the “File” and click on the “Print card” link.

Before printing the card design it is possible to personalize the Card Design with cardholders’ data. For Example, capturing a passport photo. If the card design does not have personalized data, proceed to the print button.



A. Passport photo: Capture or add a photo to the card design.

B. Signature: Capture or add a signature to the card design.

C. Enter data for the dynamic fields in your card design. It is only possible to enter data for 1 card holder, if personalized.

D. Enter number of copies to print.

E. Click on the “Print” button to print your card design.

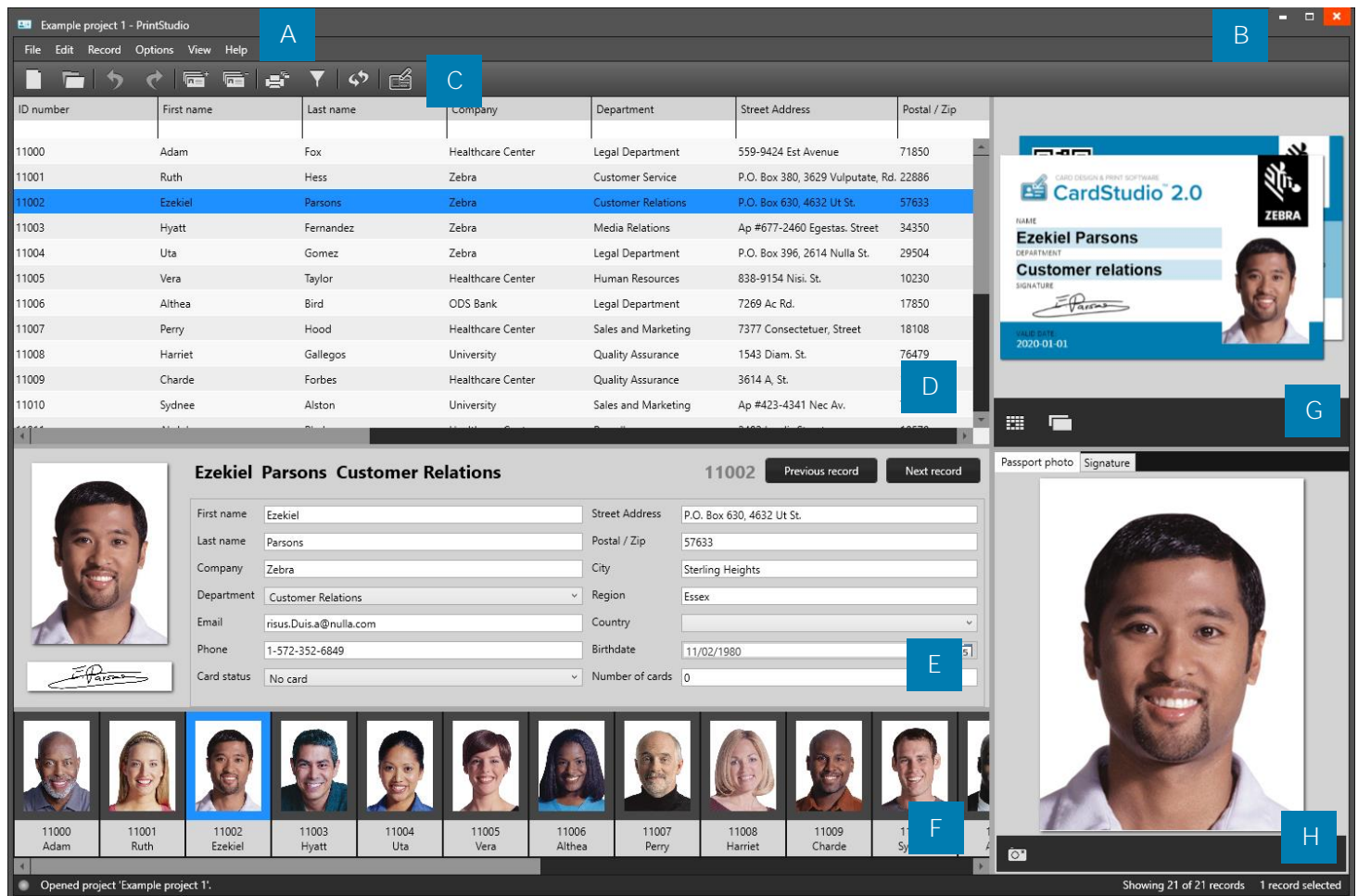
CardStudio™ 2.0 User Guide

PrintStudio



PrintStudio Interface

The dashboard of PrintStudio offers the following sections:



Example of the PrintStudio dashboard overview

- A. Main menu
- B. Window menu
- C. Quick menu
- D. Grid view
- E. Detail view
- F. Photo slider view
- G. Layout gallery and layout preview
- H. Add and Preview Photo and/or Signature

PrintStudio

Navigation

PrintStudio makes the elaborate card design process as easy, fast and intuitive as possible. Accommodating the users in your organization that are set with the task of managing data and printing cards. Using a user-friendly overview that shows all the tools and is easy to navigate.

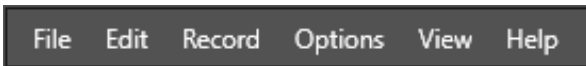
Window navigation

The window navigation gives the option to **A.** minimize, **B.** maximize or **C.** close.

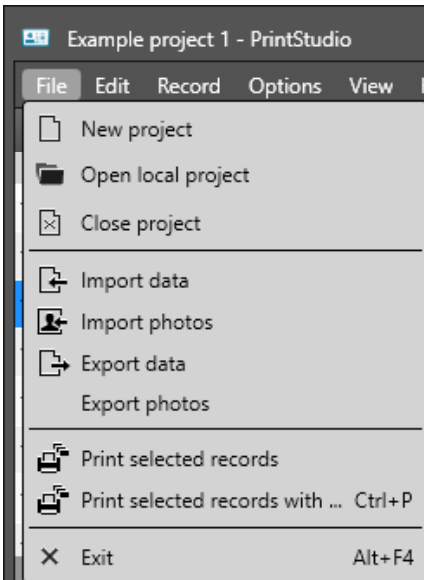


Main menu

The main menu offers the options: **File**, **Edit**, **Record**, **Options**, **View** and **Help**



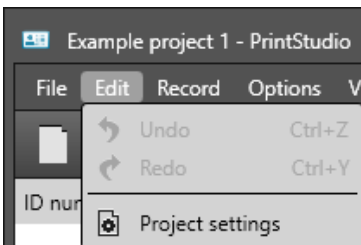
The Main Menu has 6 submenus:



File

The File menu offers the main functions needed to start, use, manage and exit a PrintStudio Project:

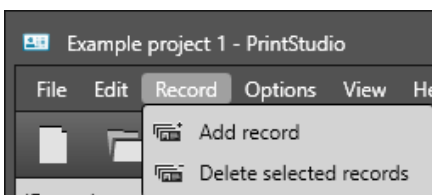
- *New project*: Start a new project in PrintStudio.
- *Open project*: Open an existing project made in PrintStudio.
- *Close project*: Close the Print Studio project.
- *Import data*: Import data from an Excel file, BadgeMaker 7 or IDPro7 project.
- *Import photos*: Batch import photos or signatures.
- *Export project data*: Export the record data to an CSV file.
- *Print selected records*: Print the records selected in the Grid view.
- *Print selected records with...*: Print quickly with an already set printer.
- *Exit*: Exit PrintStudio



Edit

The Edit menu offers the edit functions and project settings that you use during the data managing process:

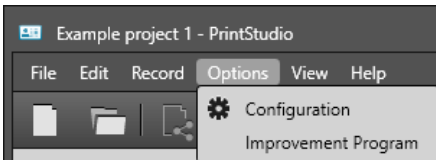
- *Undo*: Undo recent actions made in your project.
- *Redo*: Redo actions you undid in your project.
- *Project Settings*: Change project settings and link card designs to your project.



Record

The Record menu give you control over the records being able to add new records or delete existing records.

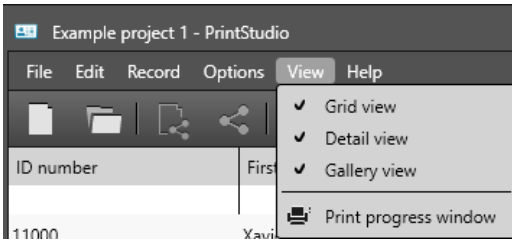
- *Add new record*: Add new card holder data, photo and or signature.
- *Delete selected record*



Options

The Options menu brings you to the configurations of the application like date and language settings.

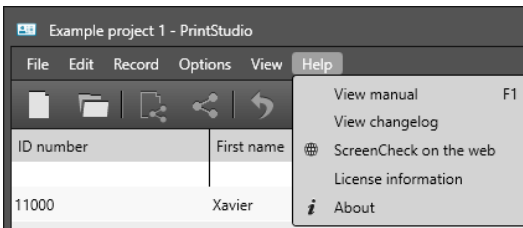
- [Configuration](#)
- [Improvement Program](#)



Views

The Views menu makes it possible to make certain views in the main window visible or invisible.

- [Grid View](#)
- [Detail View](#)
- [Photo Slider View](#)
- [Print Status Window](#)



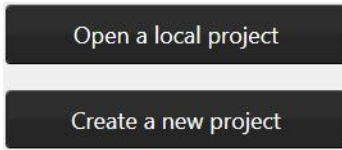
Help

For more information on the application or a user guide click on the Help button.

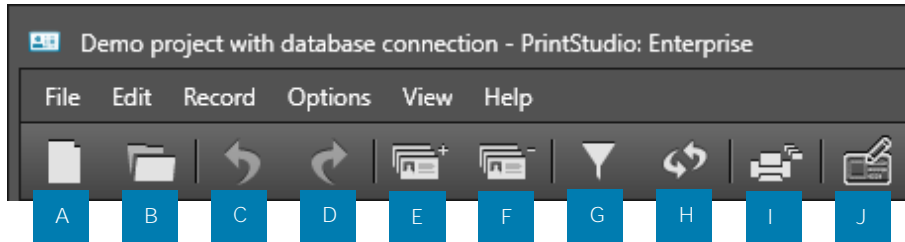
- [View manual](#)
- [View changelog](#)
- [ScreenCheck on the web](#)
- [License information](#)
- [About](#)

Quick menu

When opening PrintStudio two Quick buttons appear in the middle of the interface. The buttons give two options, continue working with an existing project or creating a new project.



The Quick menu offers a selection of large visual buttons often used in the card production process making navigation quick and easy.

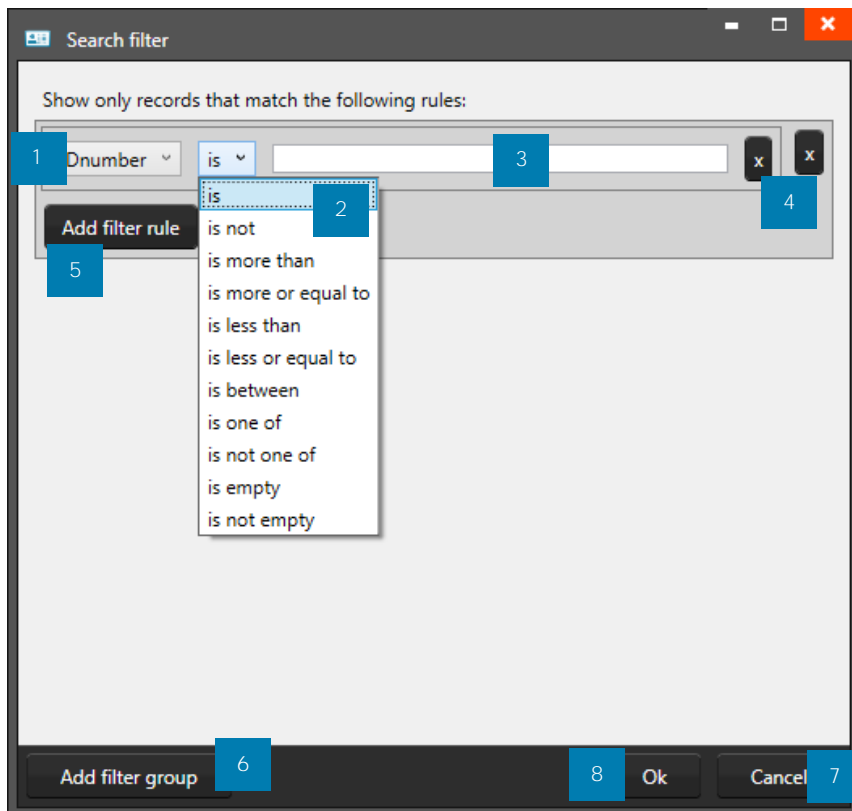


Quick menu view with large visual buttons

- A. New
Click to start a new Project.
- B. Open existing Project
Click to open an existing project.
- C. Undo
Undo actions done working in the project.
- D. Redo
Redo an action that was undone working in the project.
- E. Add a new record
Records are single data rows that contain all the information of one person. Click to add a new record to the project. This means putting in new information for a new card holder, adding a photo and if needed adding a signature.
- F. Delete a selected record
Records are single data rows that contain all the information of one person. Click to delete the selected record(s) from the project.

G. Filter records

Have a lot of data in your data grid? This button will be helpful giving you all kinds of different filter options to search for specific groups or a certain person. You can add multiple filter sets. Every filter set can have one or more filter rules. You can combine one or more filter sets to make your search more specific.



Example of the filter options window that pop-up after clicking the filter button in the Quick menu.

1. To setup a filter rule starts with selecting one of the fields that you want to search in. This will narrow a search and make it faster.
2. After selecting the field, you need to select how specific you want to match the field with the criteria in field 3. If the value is very specific choose “is”, if you do not want it to be too specific you can choose “Starts with”.
3. Enter the information you are looking for depending on a specific search or a group search. For example, you could enter a complete index number to find a certain person or just the start of a number.
4. The “X” buttons are to delete a filter rule or a filter set.
5. Click on this button to add a new filter rule to this filter set to narrow your search.
6. Click on this button when you want to add a new filter set. Example: You use a filter set when searching for two different type of records and need to add a separate search.
7. Cancel filter option.
8. To start the search/filter process click on the “Ok” button.

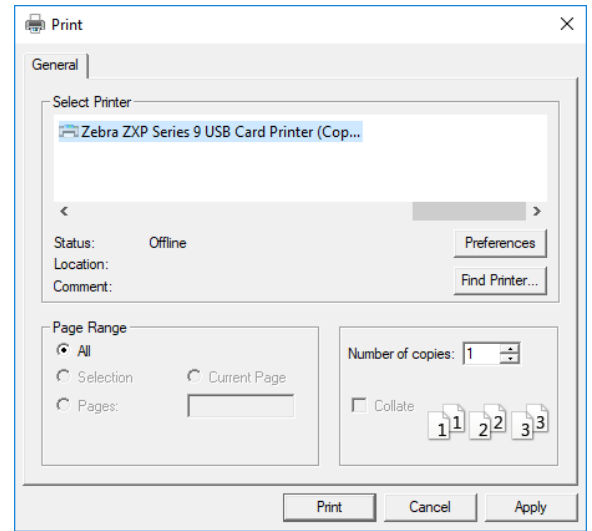
K. Refresh Data

This button allows you to refresh data when working with CardStudio Connect projects making sure all data is up to date with the connected data bases.

L. Print all selected records
Print all selected records

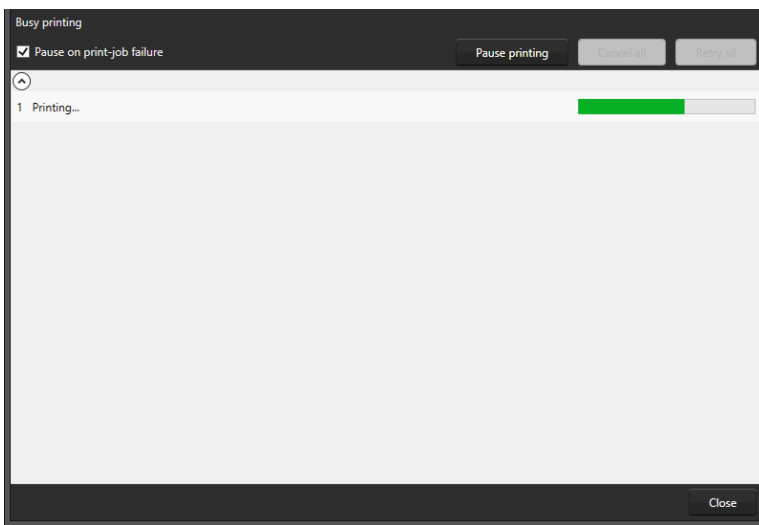
1. To print one or more records, select them and click the print button to print the records, using the most recent printer setup. On first-time use, the printer dialogue will be displayed.

A print window pops up, so you can select the printer you installed for the card printing process. This manual does not describe the installation of printers. Please refer to the manufacturers manuals for further information on these devices. After selecting the printer, click on the “Print” button.



Example printer setup window.

2. A print progress window will pop-up that will show you the progress of the cards that are being printed.



Example of the Card printing progress window.

L. CardStudio Design

This quick menu button lets you open CardStudio Design and continue with creating or adjusting your card design.

PrintStudio

Create a Project

PrintStudio

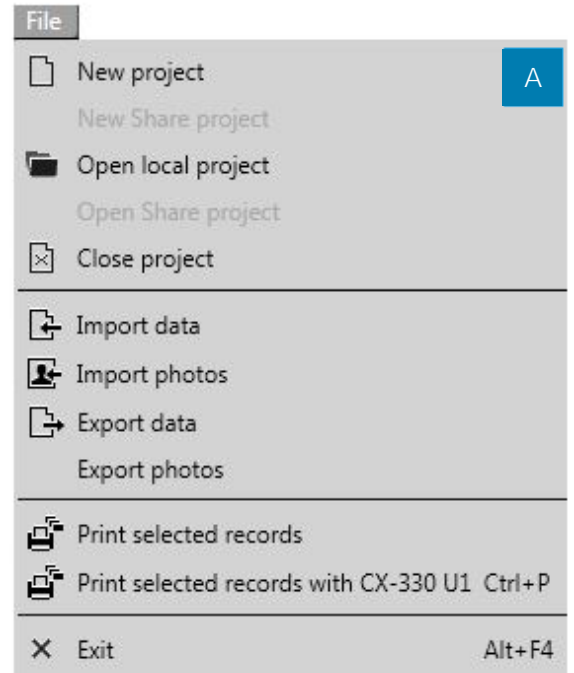
Create a Project

To setup a PrintStudio project, start with the setup of a new project or open an existing one.

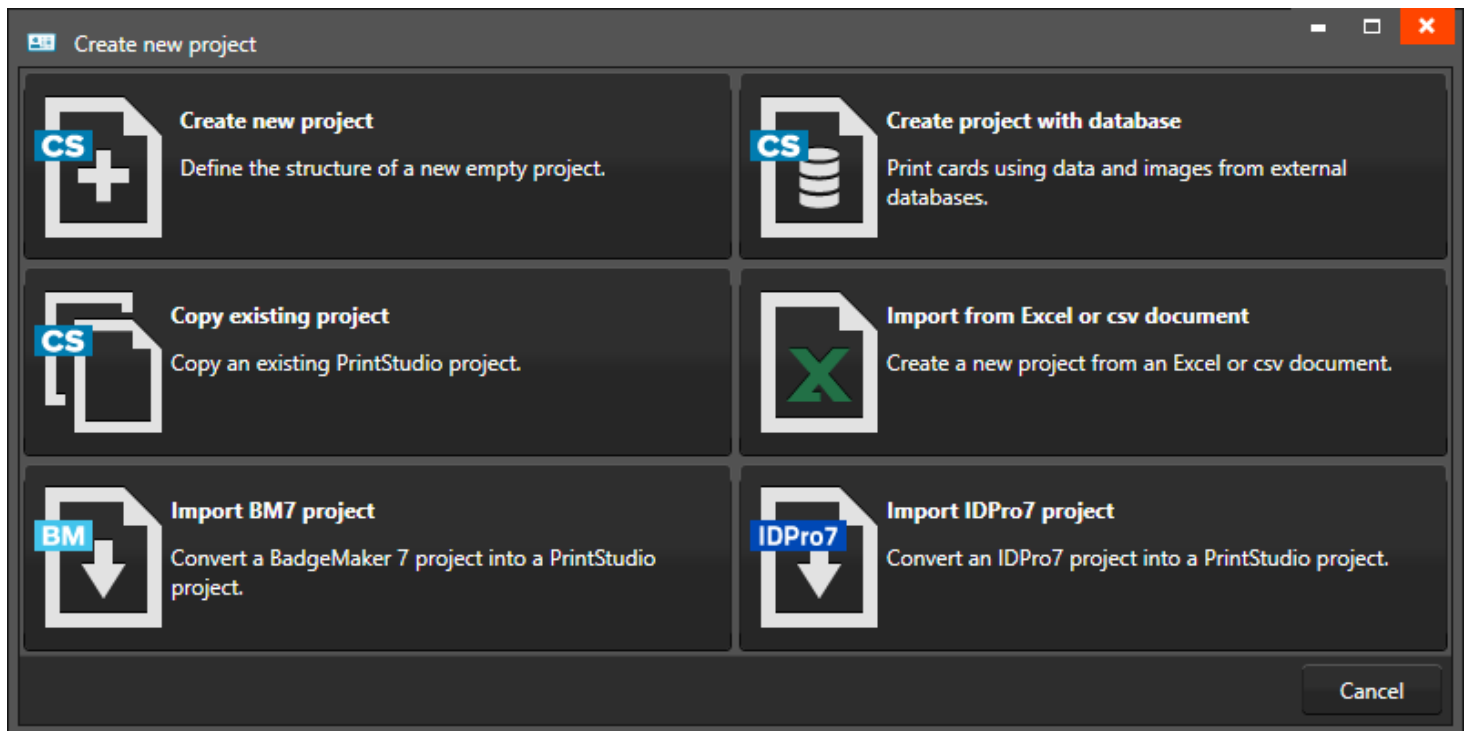
New Project

A. Go to File in the main menu and click on “New”.

Or click on the icon below in the quick menu:

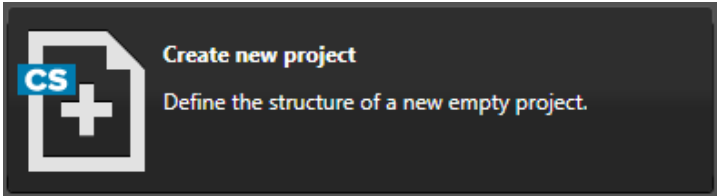


Click on the “New project” link or button a “Create New Project”, a selection window will pop-up. You can select one of the six options to start a new project.



Example of the selection window to create a new project.

Create a New Project



Click on “[Create a New Project](#)” to start with a blank data grid and setup your own database field names. A **couple of default fields** are supplied to speed up the setup process. Change the default fields or add extra fields as needed.

1. Project structure

Step 1. Setup the project structure by adding the project data fields.

The screenshot shows the 'Create new PrintStudio project' dialog box, specifically the 'Project structure' step. At the top, there is a progress bar with six steps: 1. Project structure (active), 2. Biometric settings, 3. View configuration, 4. Card designs, 5. Triggers, and 6. Create project. Below the progress bar, the 'Project structure' section has a 'Project name' field containing 'Zebra Demo Project'. Below this is a table with columns: Name, Type, Required, Unique, and Default value. The table contains several rows for data fields: 'ID' (Whole number, Required, Unique, Default value), 'Name' (Text, Not Required, Not Unique, Default value), 'Last name' (Text, Not Required, Not Unique, Default value), 'Date of birth' (Date, Not Required, Not Unique, Default value 'Select a date'), 'Number of cards' (Whole number, Not Required, Not Unique, Default value), and 'Card status' (Options list, Required, Not Unique, Default value 'No card'). Each row has a delete 'X' button. There are also checkboxes for 'Is auto-incrementing' for the 'ID' and 'Number of cards' fields. At the bottom, there is an 'Add new property' button, 'Previous step', 'Next step', and 'Cancel' buttons.

Example of step 1. New project: add project data columns

- A. Type in the name for your new project.
- B. Put in the database field name.
- C. Set the data type. Select if the data are number or text for example.
- D. Check these boxes if the field needs to be “**Required**” and or “**Unique**”.
- E. With the default input field, you can add a standard value to your data field. Existing empty fields and new records will automatically show the default value you add to this data field.
- F. Click on the “X” button to delete a data field from the project structure setup.
- G. Enable auto-increment for “**Whole number**” data fields, to let for example the ID number increase by one for every new record automatically.
- H. Click on the “**Add new property**” button and add and describe the data field names you want to use in your new project.
- I. Click on the “**Next step**” button to go to step 2. and configure the detailed and gallery view.

2. Biometric settings

During step 2, you can enable the biometric images you need in your project and determine how they will be stored.

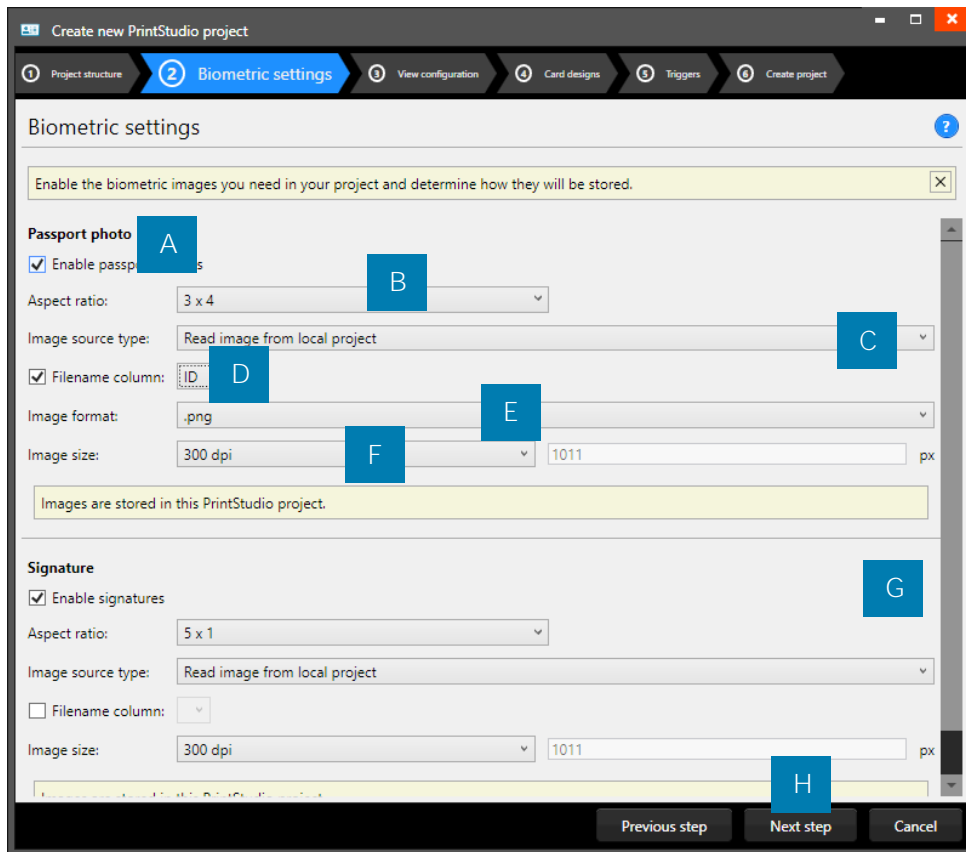


Fig. Example of step 2. New project: Biometric settings

- A. The box for passport photos makes photos visible in the project and enables you to add photos.
- B. After checking the box, you can determine the ratio of the photo.
- C. Select how and where photos will be saved within your project.
- D. Check this box if you want to use data columns to represent the filename.

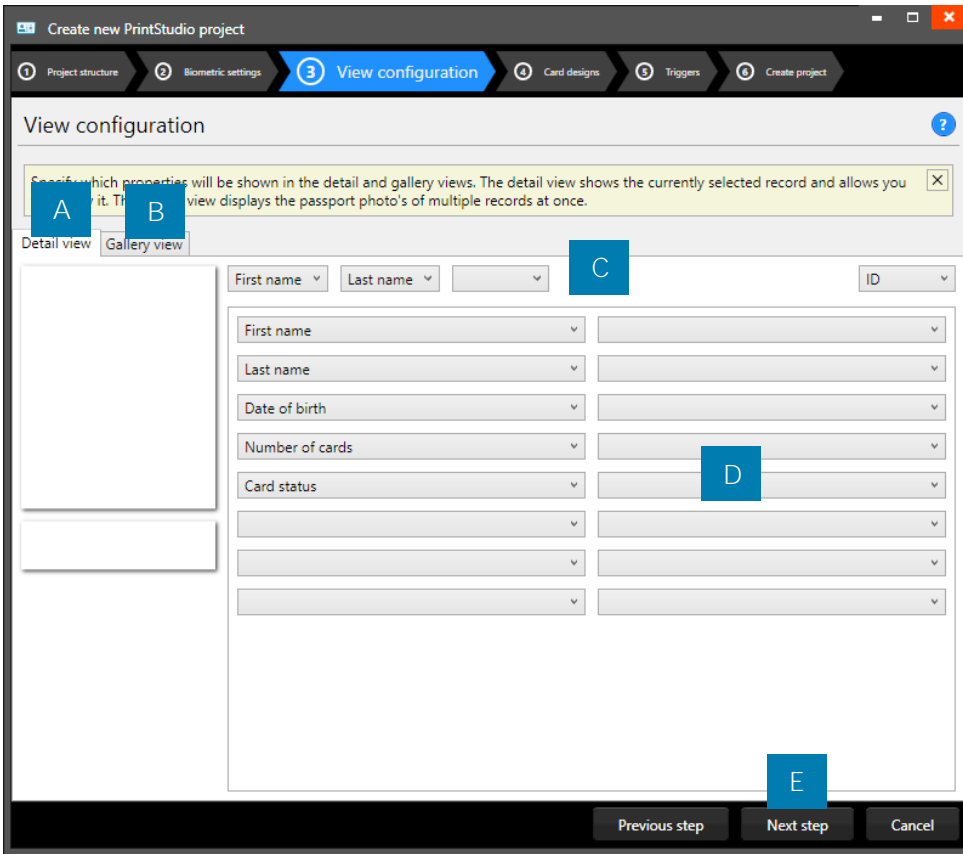


Example of photo's that have filenames corresponding with their ID number.

- E. Select the image format (.png, .jpg or .bmp) the photos need to be saved as within your project.
- F. Here you can select what size the photos need to be saved as within your project.
- G. The proces for signatures works the same as the photo settings.
- H. Click on the “Next step” button to go to step 3 and configure the view configuration.

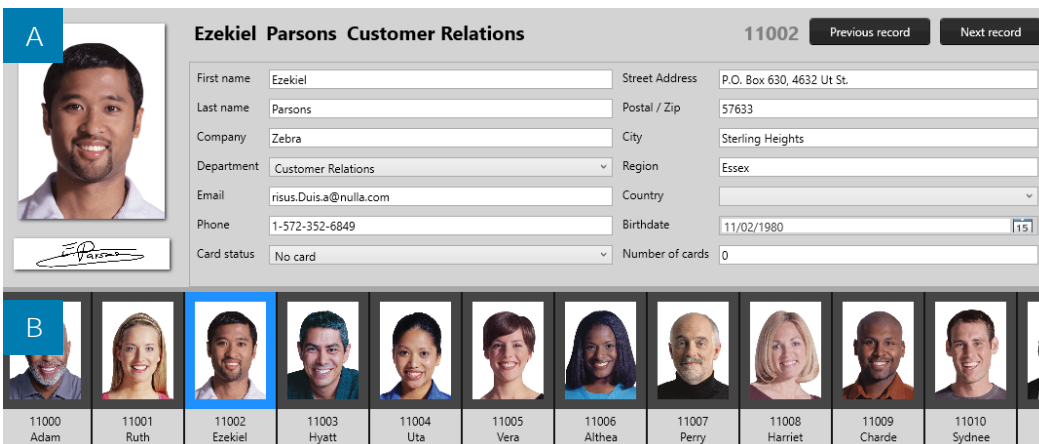
3. View configuration

During step 3, choose the default configuration or adjust the setup for Detailed and Gallery view.



Example of step 3. New project: view configuration

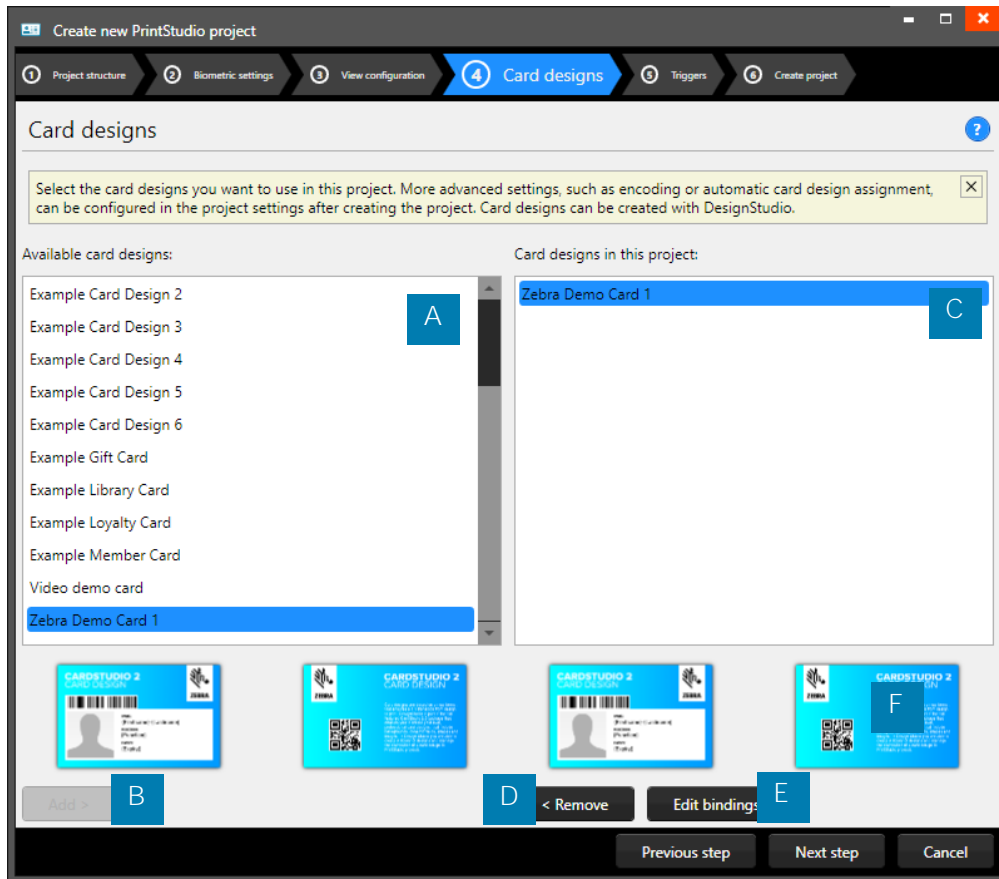
- A. Tab to configure Detailed view showing specific cardholders' information.
- B. Tab to configure Gallery view showing cardholders photos.
- C. Setup the title for the detailed view.
- D. Setup the information that will be shown in the detailed view.
- E. Click on the “Next step” button to go to step 4. and add triggers to the project.



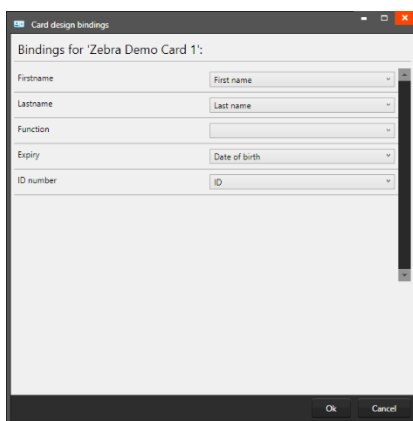
Example of the A. Detailed view and the B. Gallery view

4. Card designs

Step 4. allows you to add card designs to your new project.



- A. Select one of the available designs.
- B. Click on the “Add” button to add the design to your project.
- C. If you want to remove a design from your project, select one of the designs in this list.
- D. Click on the remove button if you want to delete the selected design from your project.
- E. Select a design and then click on the “Edit” button if you want to edit the bindings for the dynamic data of the card design.

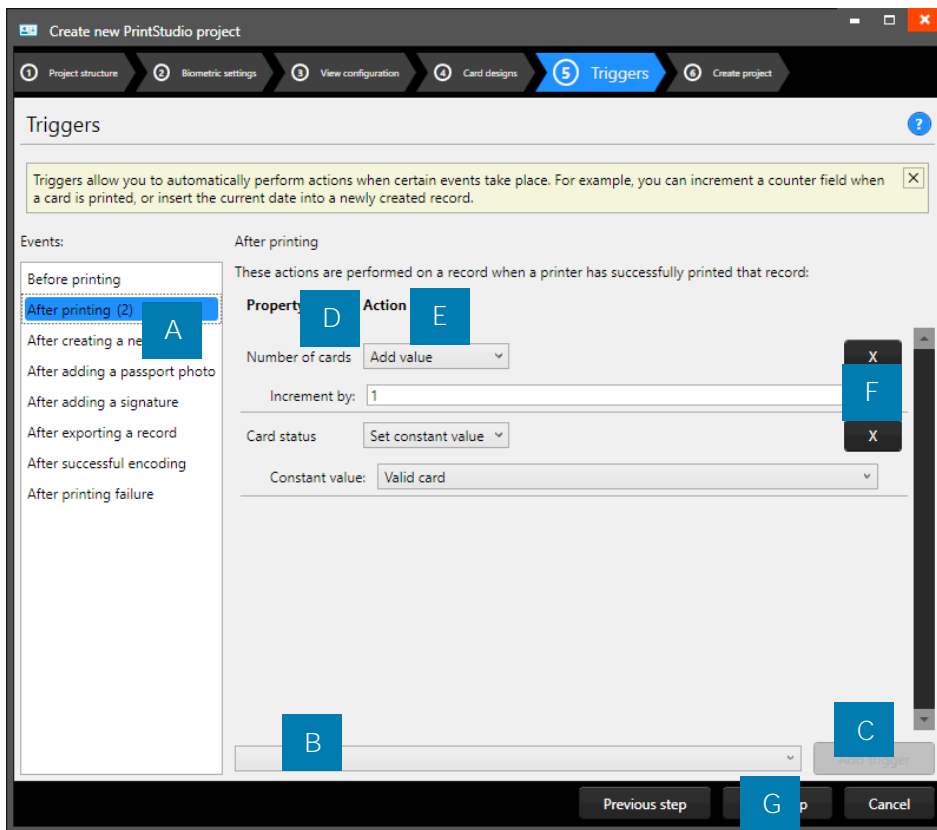


The data binding tool is a powerful option in PrintStudio. When you add a new layout or update a layout you will be prompted to create the data bindings. Dynamic fields used and created in your layout may differ from the naming or spelling of a name that exists in your Project database. Therefore, you will be allowed to create the data bindings. The dynamic fields that are created in the layout are presented to the left and you can bind these dynamic fields to the database fields. The tool will create the bindings for you that are obvious: if they are the same or as they were bonded at the previous update; of course, you will be able to modify the bindings and confirm these settings. The new or modified layout will be available in the dashboard of PrintStudio.

- F. Preview of a selected Card Design.

5. Triggers

Step 5. allows you to setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



Example of step 5. New project: Triggers

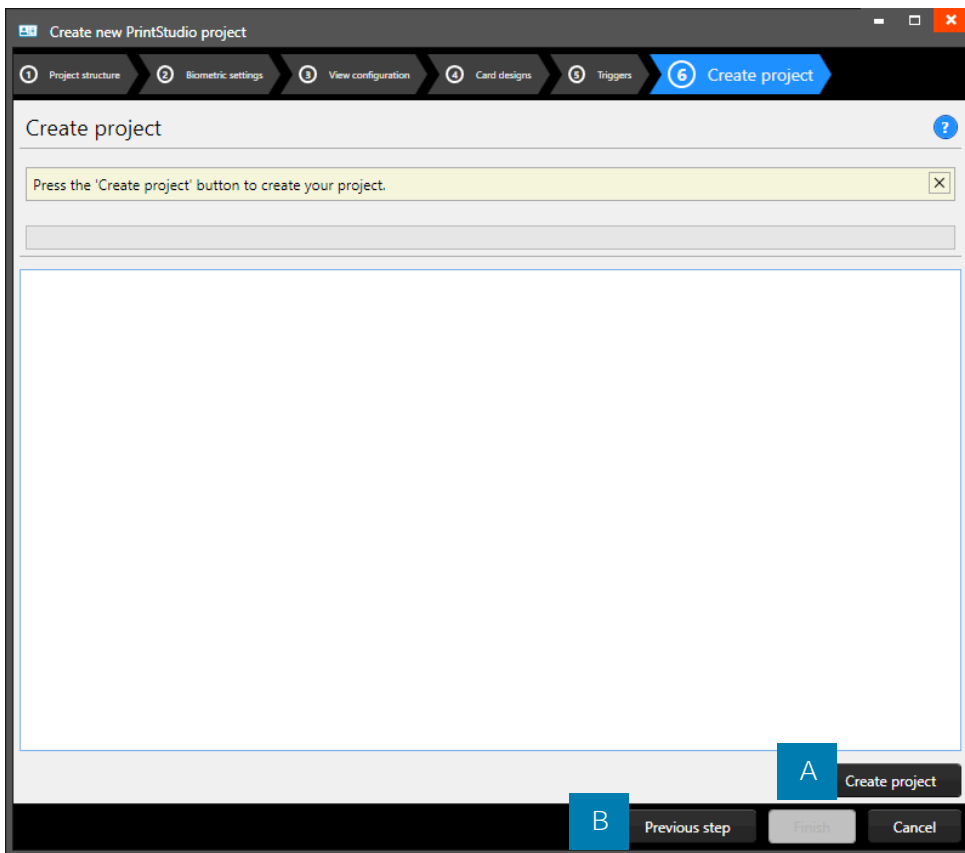
- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to it.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.
- G. Click on the “Next step” button to go to step 6. and create the project.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on Number type columns). All changes need to be saved before they become active. Understand that triggers might cause your original data to change, so make sure no vital data is lost when working with triggers.

6. Create project

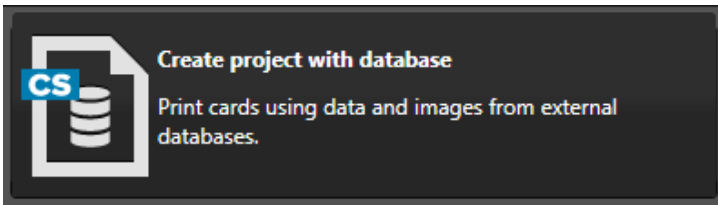
During step 6, the application will start creating your new project after you click on the A. “Create project” button. If there are problems, read the feedback provided and click on the B. “Previous” button to go back and make the needed adjustments.

You are now ready to start adding records to your data grid.



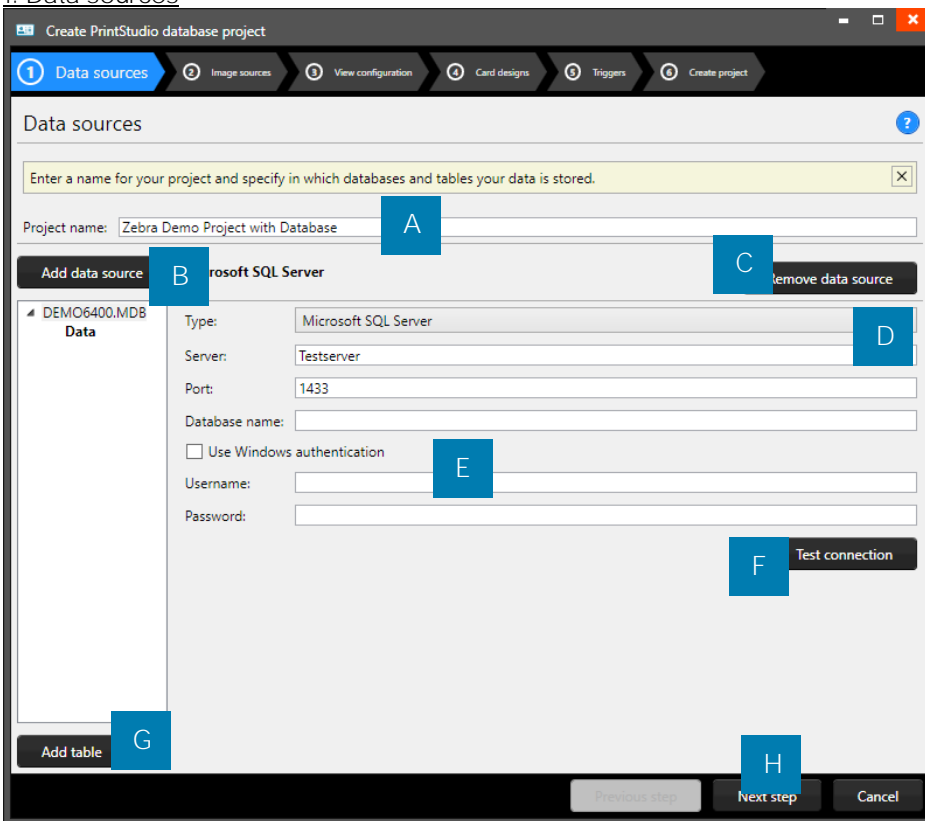
Example of step 6. New project: Create project.

Create a New CardStudio Project with database connection



To create a new CardStudio project with database you need the CardStudio 2.0 Enterprise or Professional Edition. Go to the [CardStudio Database Connection](#) Chapter for more information.

1. Data sources



Example of a New PrintStudio Database project with Microsoft SQL database connection step 1: data sources

- A. Give your PrintStudio Database project a unique name.
- B. Click on “Add data source” to add a database connection to your new project.
- C. Select an added database connection and click on “Remove data source” to remove a connection.
- D. Select the type of Database you want to connect with, give the server name, port number and database name.
Several database types are supported:
 - Microsoft SQL Server
 - Microsoft Access files
 - MySQL Server
 - Oracle Server
 - ODBC
- E. When an external database is secured with credentials you can add those credentials here.
- F. Click on “Test connection” to test the connection with the external database.
- G. Select the added database connection and click on “Add table” to add a table from your database to the project.
- H. Click on “Next” to continue to the next step.

2. Image sources

Step 2. Let you specify where your biometric images are located.

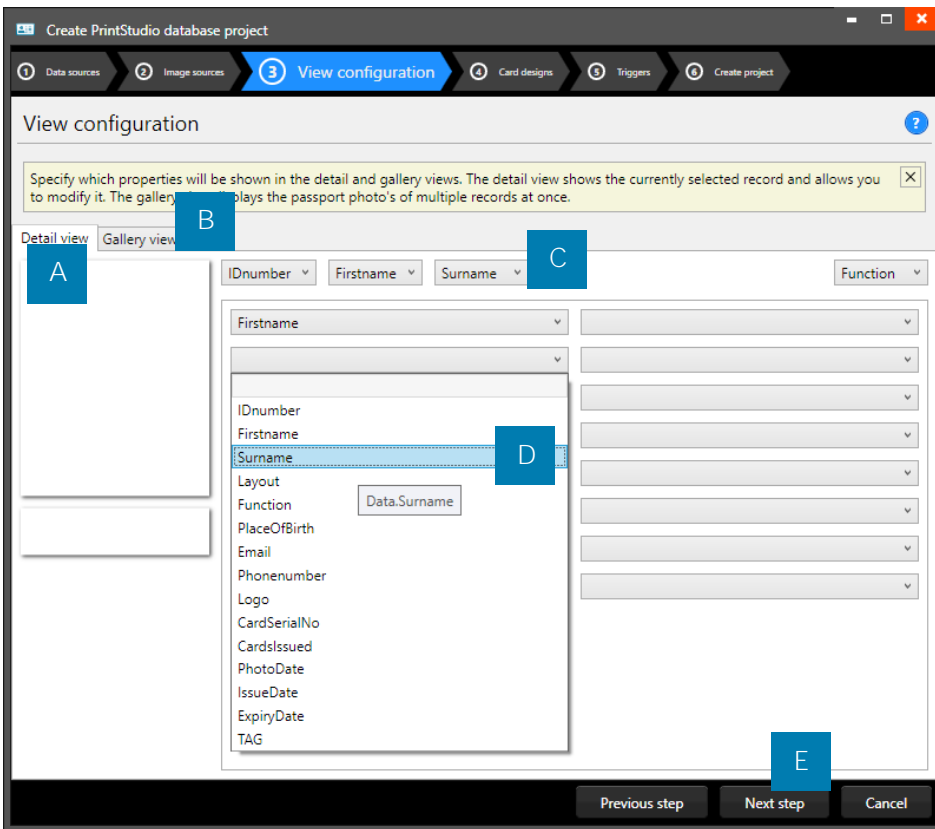
The screenshot shows the 'Image sources' configuration window. At the top, there's a progress bar with steps: 1 Data sources, 2 Image sources (highlighted), 3 View configuration, 4 Card designs, 5 Triggers, 6 Create project. Below the title bar, there's a yellow box with the text 'Here you can specify where your biometric images are located.' and a close button. There are two checked checkboxes: 'Enable signatures' (labeled A) and 'Enable passport photos'. Next to 'Enable signatures' is a dropdown menu for 'Aspect ratio' (labeled B) set to '5 x 1'. Next to 'Enable passport photos' is a dropdown menu for 'Aspect ratio' set to '3 x 4'. Below this is a section for 'Passport photo' (labeled C) with 'Image source type' set to 'Read image from local project'. Underneath is 'Image size' set to '300 dpi' (labeled D) and '1011 px'. A yellow box below says 'Images are stored in this PrintStudio project.' There is a similar section for 'Signature' (labeled C) with 'Image source type' set to 'Read image from local project', 'Image size' set to '300 dpi' (labeled D) and '1011 px', and another yellow box saying 'Images are stored in this PrintStudio project.' At the bottom right, there are three buttons: 'Previous step', 'Next step' (labeled E), and 'Cancel'.

Example of a new project with database connection to a Microsoft SQL database step 2. Image sources.

- A. Check the box when you want to add signatures and or passport photos to your project.
- B. After checking the box, you can determine the ratio of the photo.
- C. Select the image source, from where the images need to be imported into your project.
- D. Select what size the photos need to be saved as, within your project.
- E. Click on the “Next step” button to go to step 3. and configure the detailed and gallery view.

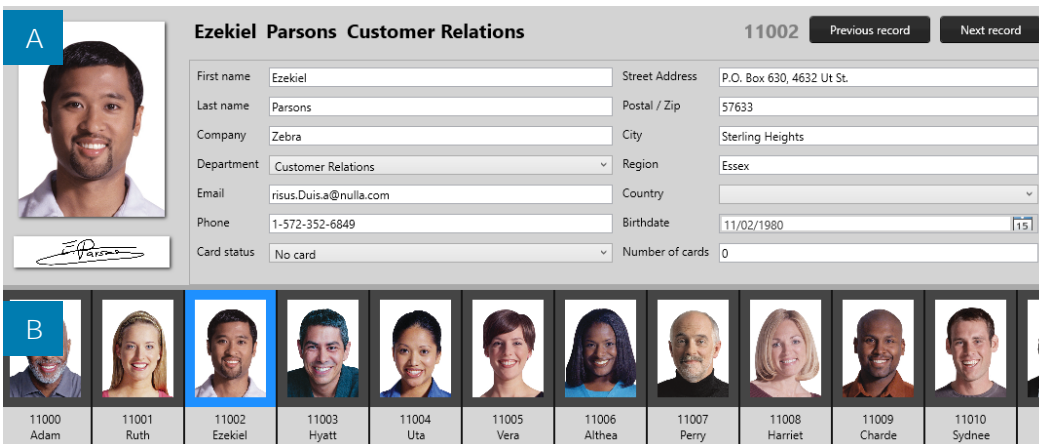
3. View configuration

Step 3. Choose the default configuration or adjust the setup for Detailed and Gallery view.



Example of step 3. New project with database: View configuration

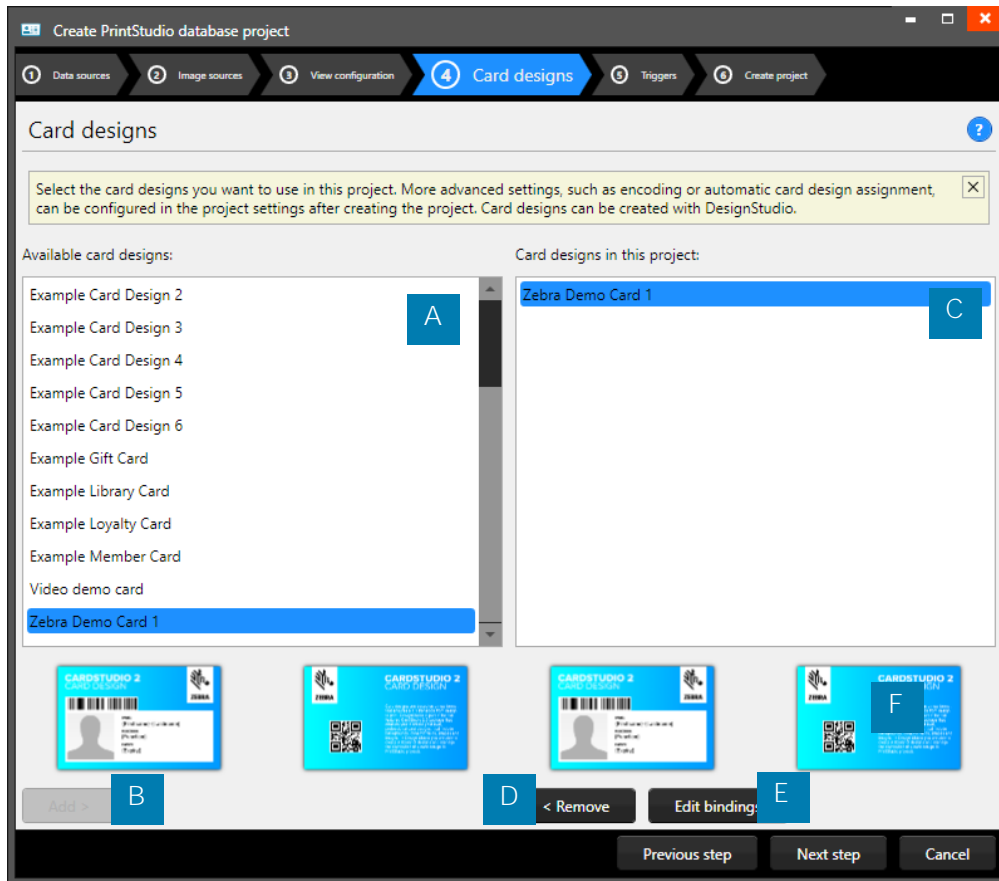
- A. Tab to configure Detailed view, showing specific card holders information.
- B. Tab to configure Gallery view, showing card holders photos.
- C. Setup the title for the detailed view.
- D. Setup the information that will be shown in the detailed view.
- E. Click on the “Next step” button to go to step 3. and add triggers to the project.



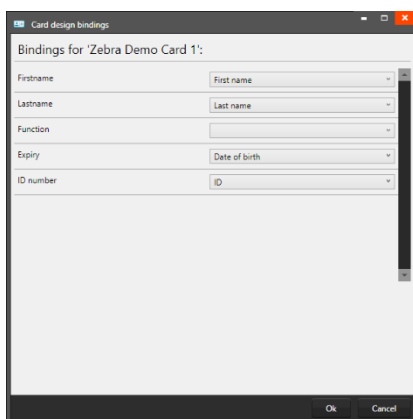
Example of the A. Detailed view and the B. Gallery view

4. Card designs

Step 4. allows you to add card designs to your new project.



- A. Select one of the available designs.
- B. Click on the “Add” button to add the design to your project.
- C. If you want to remove a design from your project, select one of the designs in this list.
- D. Click on the remove button if you want to delete the selected design from your project.
- E. Select a design and then click on the “Edit” button if you want to edit the bindings for the dynamic data of the card design.

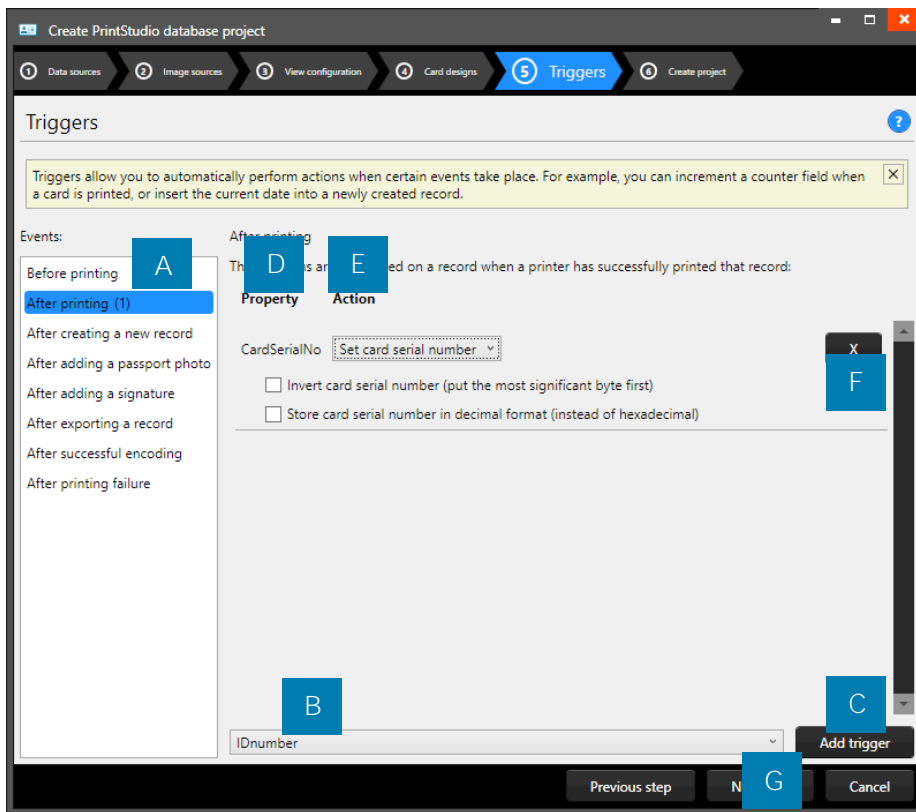


The data binding tool is a powerful option in PrintStudio. When you add a new layout or update a layout you will be prompted to create the data bindings. Dynamic fields used and created in your layout may differ from the naming or spelling of a name that exists in your Project database. Therefore, you will be allowed to create the data bindings. The dynamic fields that are created in the layout are presented to the left and you can bind these dynamic fields to the database fields. The tool will create the bindings for you that are obvious: if they are the same or as they were bonded at the previous update; of course, you will be able to modify the bindings and confirm these settings. The new or modified layout will be available in the dashboard of PrintStudio.

- F. Preview of a selected Card Design.

5. Triggers

Step 5. allows you to setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



Example of step 5. New project with database: Triggers

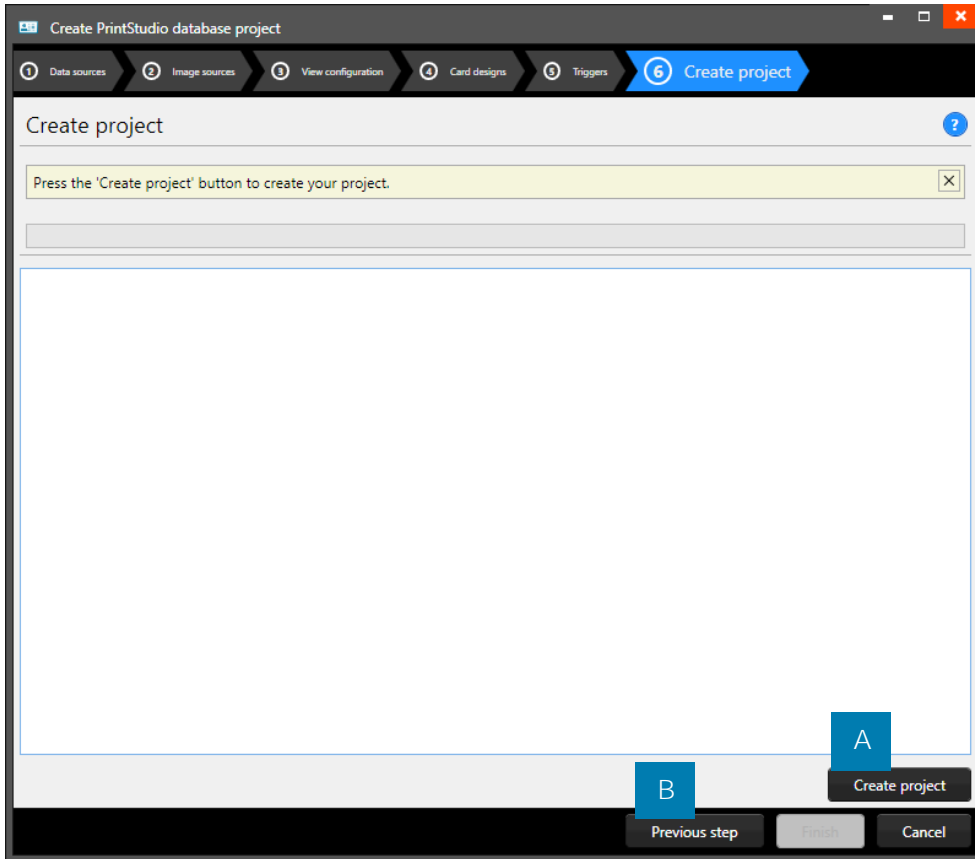
- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to it.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the Trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.
- G. Click on the “Next step” button to go to step 5. and create the project.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on Number type columns). All changes need to be saved before they become active. Please be aware that triggers might cause your original data to change, so make sure no vital data is lost when working with triggers.

6. Create project

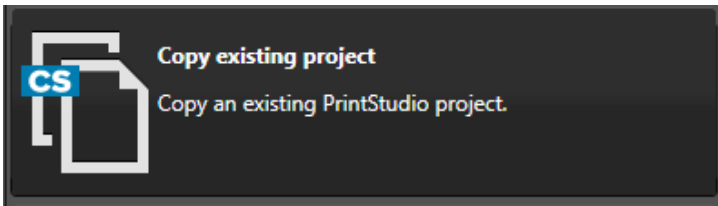
Step 6. Will create your new project after you click on the A. “Create project” button. If there are problems read the feedback provided and click on the B. “Previous” button to go back and make the needed adjustments.

You are now ready to start adding records to your data grid.

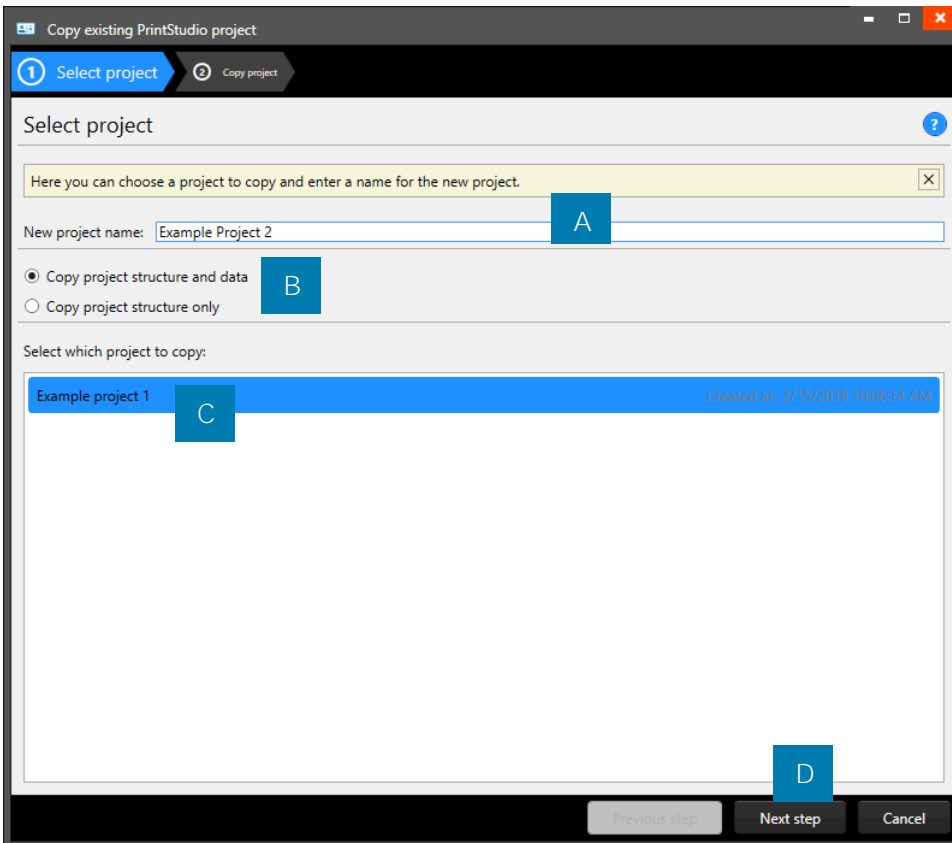


Example of step 6. New project with database: Create project.

Create copy of an existing Project



With PrintStudio a new project can be created based on an existing project. Click on the “Copy existing project” to create a new project as a copy of another project.



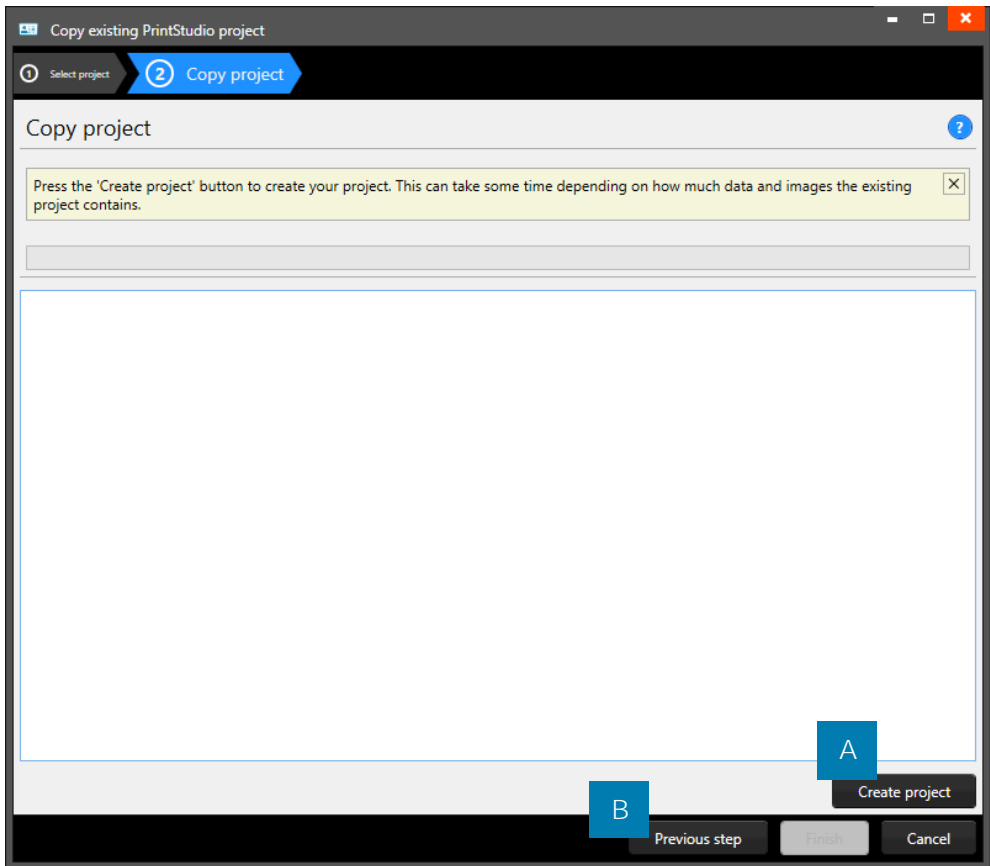
Example of step 1. New project: Copy existing project.

1. Select project

- A. Rename the project.
- B. Select a copy with data or structure only. Select structure if you only want the data field setup and not the content of the previous project.
- C. Select an existing project from the list presented.
- D. Click on the “Next step” button to create the copy project.

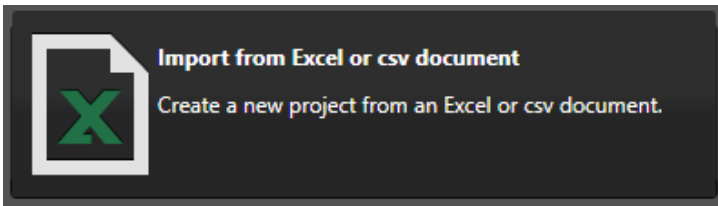
2. Copy project

Step 2. creates a copy of the project after you click on the A. “Create project” button. Select B. to make changes in the previous step. You are now ready to start adding records to your data grid.



Example of step 2. New project: Copy project.

Import Project from Excel



PrintStudio also offers to create new projects based on Excel files. PrintStudio will base the project structure on the Excel structure and will import all the data from the Excel file into the new project.

1. Data source

Step 1. Select the Excel file and Worksheet needed for the setup of the new project. You can also add a Photo source and or Signature Source if needed.

The screenshot shows the "Create project from Excel file" dialog box with the following settings:

- Step 1: Excel file
- Select Excel or csv file: C:\Demo\Corporate card data with photo USA.xls
- Select worksheet: Worksheet
- Date format: d-M-yyyy
- Select the row that contains the column names:
- Table with columns: ID number, First Name, Last Name, Department, Street Address, Postal / Zip, City, State, Country
- Number of records: 41
- Passport photo import settings:
 - Select filename column: ID Number
 - Select image folder: [empty]
- Signature import settings:
 - Select filename column: ID Number
 - Select image folder: [empty]
- Buttons: Previous step, Next, Cancel

Example of step 1. New project imported from excel file: Data source.

- A. Click on this button and select the Excel/CSV file you want to import and create a new project with.
- B. Select the worksheet you want to use from the drop-down menu.
- C. Select the date format you are using in the Excel file.
- D. Select the row that contains the column names.
- E. Select the column that connects with the unique photo names (for example: ID number or index).
- F. Select the folder that contains the cardholders' photos.
- G. Select the column that connects with the unique signature names (for example: ID number or index).
- H. Select the folder that contains the signatures.
- I. Click on the "Next step" button to continue to second step.

2. Project structure

Step 2. Name the new project and check the imported Excel data structure. Change, delete or add data columns here in the new project structure.

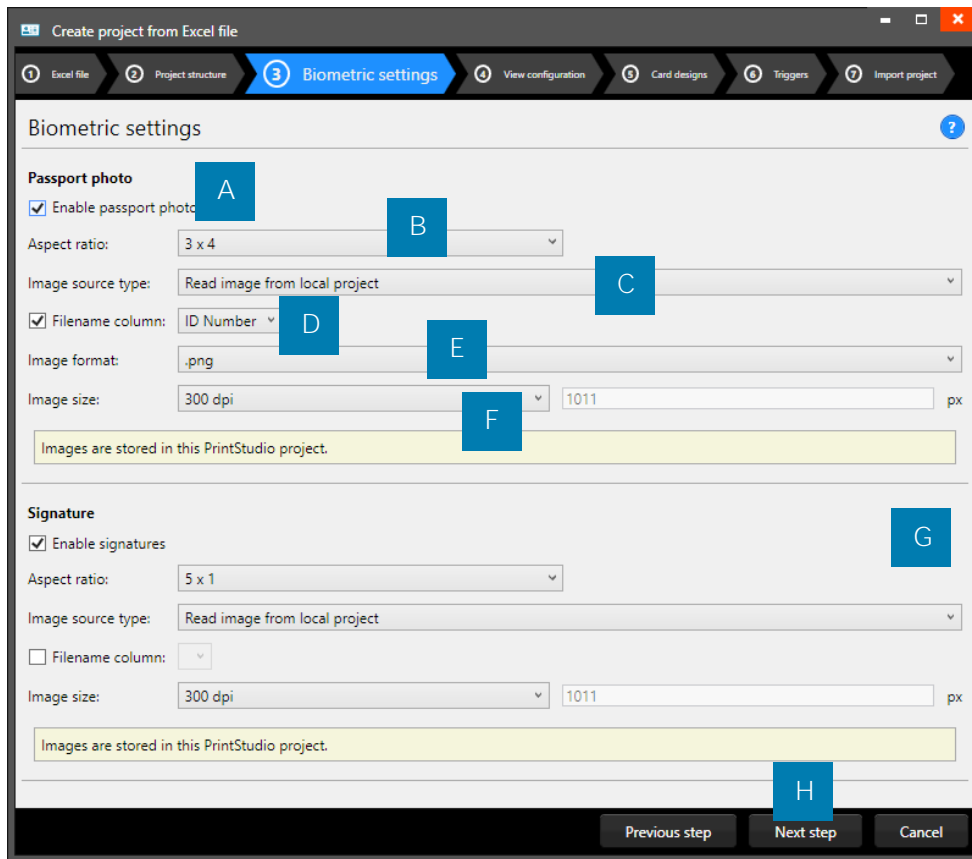
Source column	Name	Type	Required	Unique	Default value	
ID Number	ID Number	Whole number	<input type="checkbox"/>	<input type="checkbox"/>		X
	<input type="checkbox"/> Is auto-incrementing					
First Name	First Name	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Last Name	Last Name	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Department	Department	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Street Address	Street Address	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Postal / Zip	Postal / Zip	Whole number	<input type="checkbox"/>	<input type="checkbox"/>		X
	<input type="checkbox"/> Is auto-incrementing					
City	City	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
State	State	Text	<input type="checkbox"/>	<input type="checkbox"/>		X

Example of step 2. New project from Excel file: Project data columns

- A. Type in the name for your new project.
- B. Put in the project data column name.
- C. Set the data type. Select if the data are number or text for example. The following types of database fields are supported:
 1. **Whole Number**, when selecting this type, you can select 'auto-increment'. When a new record is created the number will be the highest number in the project increased by 1.
 2. **Text**
 3. **Decimal number**
 4. **Option list**, when this list type is selected, you can add and delete the values from the list that is presented for this database field. When you change a datatype from text to option list, PrintStudio automatically generates a list based on the data already in that data field.
- D. Check these boxes if the field needs to be "Required" and/or "Unique".
- E. With the default input field, you can add a standard value to your data field, existing empty fields and new records will automatically get the default value you add to this data field.
- F. Click on the "X" button to delete a data field from the project structure setup.
- G. Click on the "Add new property" button and add and describe the data field names you want to use in your new project.
- H. Click on the "Next step" button to go to step 2. and configure the detailed and gallery view

3. Biometric settings

Step 3. Enable the biometric images needed in the new project and determine how they will be stored.



Example of step 3. New project from Excel file: Biometric settings

- A. The box for passport photos makes photos visible in the project and enables you to add photos.
- B. After checking the box, you can determine the ratio of the photo.
- C. Select how and where photos will be saved within your project.
- D. Check this box if you want to use data columns to represent the filename.

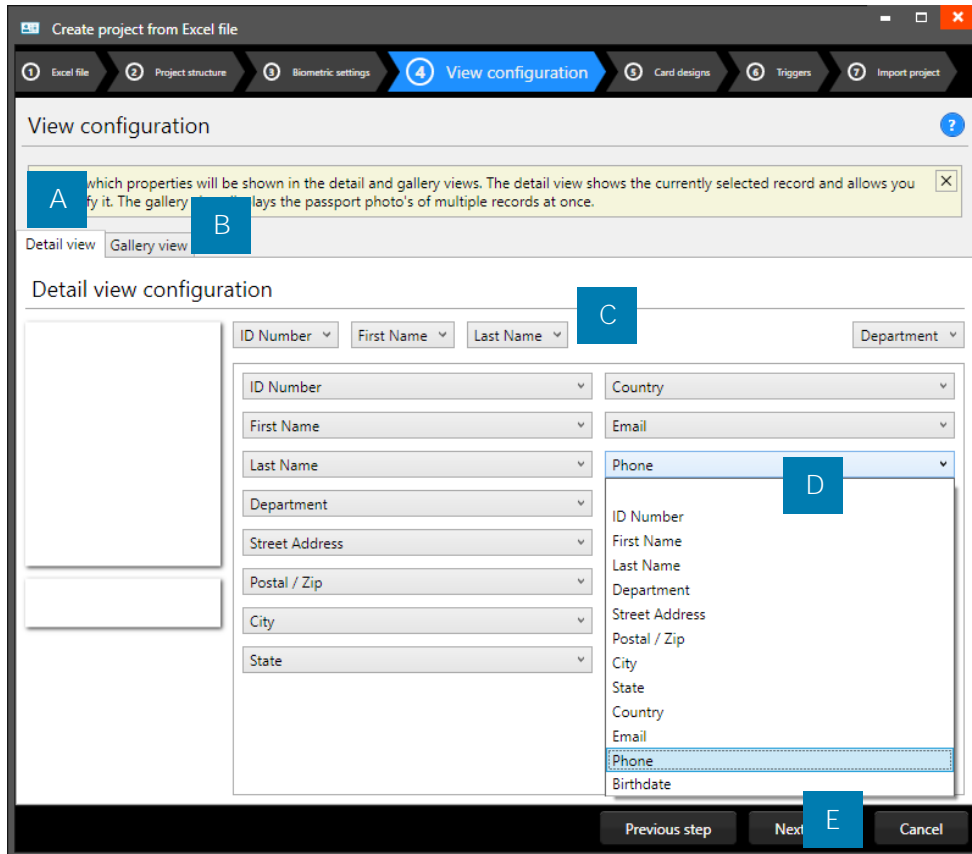


Example of photo's that have filenames corresponding with their ID number.

- E. Select the image format (.png, .jpg or .bmp) the photos need to be saved as within your project.
- F. Here you can select what size the photos need to be saved as within your project.
- G. The proces for signatures works the same as the photo settings.
- H. Click on the “Next step” button to go to step 3 and configure the view configuration.

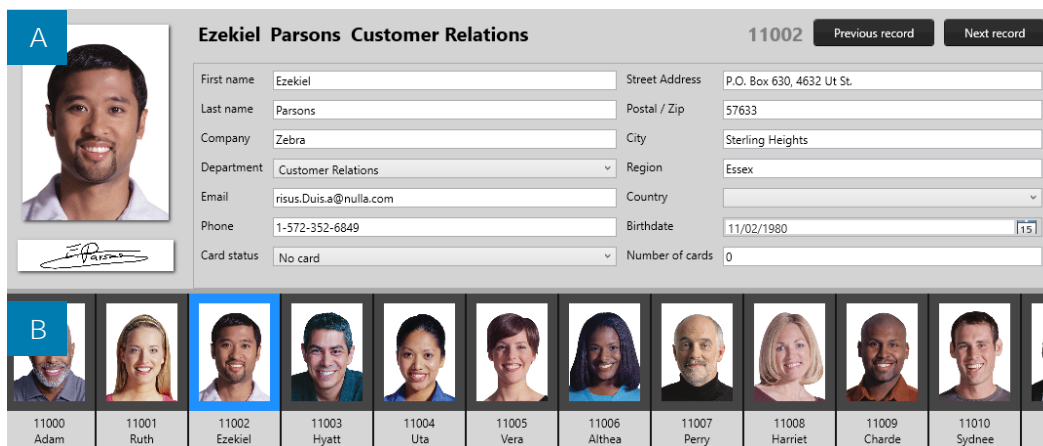
4. View configuration

Step 4. Choose the default configuration or adjust the setup for Detailed and Gallery view.



Example of step 4. New project from Excel file: View configuration

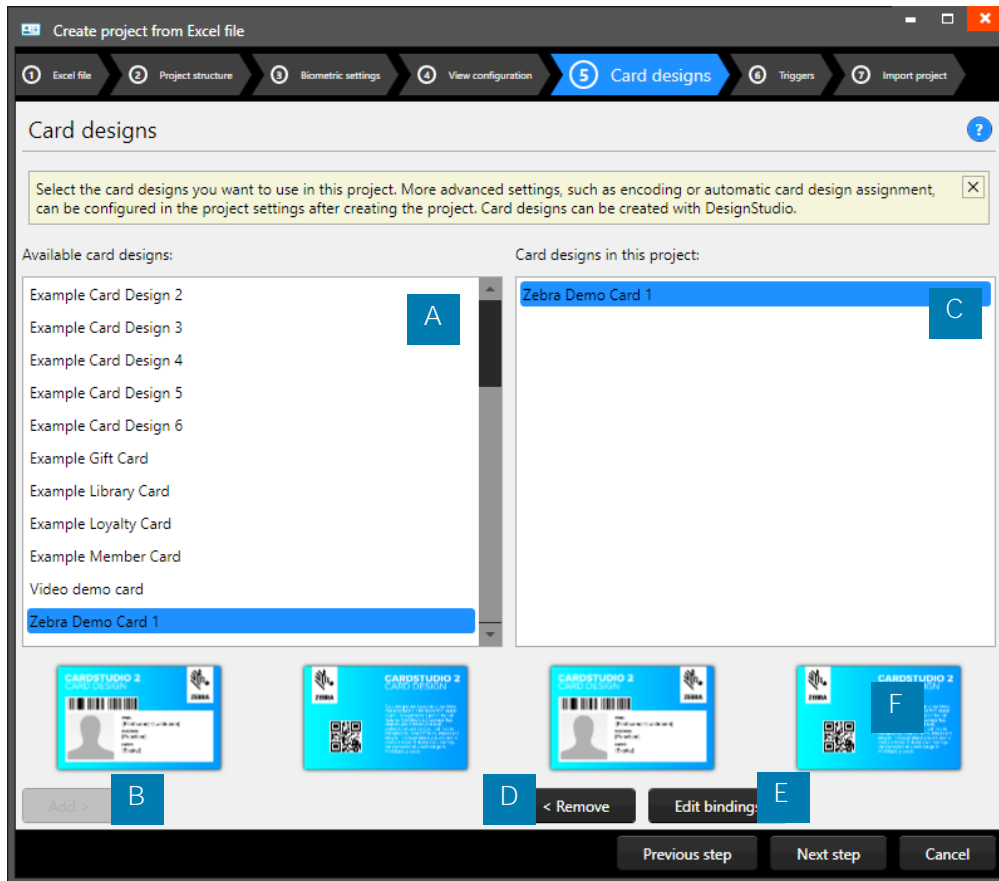
- A. Tab to configure Detailed view, showing specific cardholders' information.
- B. Tab to configure Gallery view, showing cardholders photos.
- C. Setup the title for the detailed view.
- D. Setup the information that will be shown in the detailed view.
- E. Click on the "Next step" button to go to step 5. and add triggers to the project.



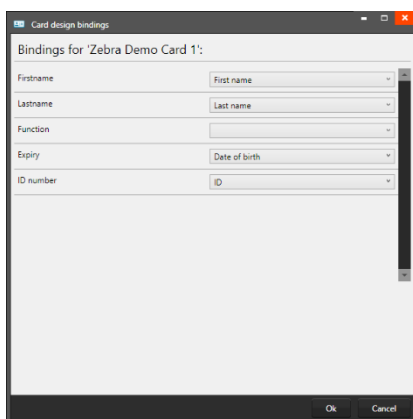
Example of the A. Detailed view and the B. Gallery view

5. Card designs

Step 5. allows you to add card designs to your new project.



- A. Select one of the available designs.
- B. Click on the “Add” button to add the design to your project.
- C. If you want to remove a design from your project, select one of the designs in this list.
- D. Click on the remove button if you want to delete the selected design from your project.
- E. Select a design and then click on the “Edit” button if you want to edit the bindings for the dynamic data of the card design.

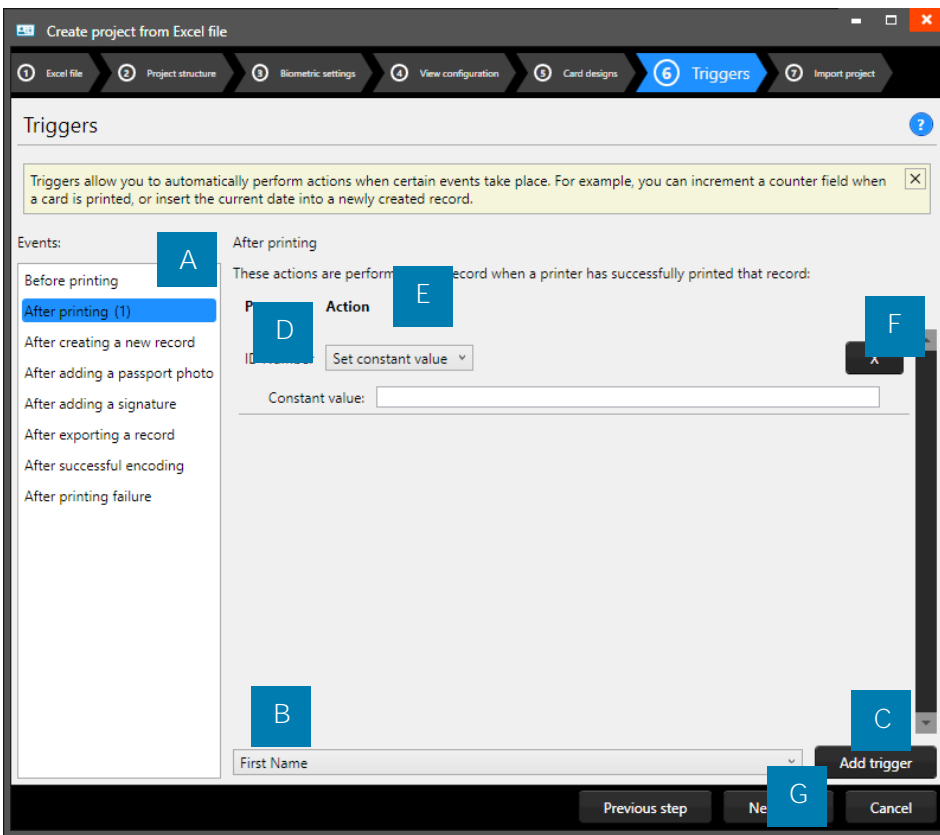


The data binding tool is a powerful option in PrintStudio. When you add a new layout or update a layout you will be prompted to create the data bindings. Dynamic fields used and created in your layout may differ from the naming or spelling of a name that exists in your Project database. Therefore, you will be allowed to create the data bindings. The dynamic fields that are created in the layout are presented to the left and you can bind these dynamic fields to the database fields. The tool will create the bindings for you that are obvious: if they are the same or as they were bonded at the previous update; of course, you will be able to modify the bindings and confirm these settings. The new or modified layout will be available in the dashboard of PrintStudio.

- F. Preview of a selected Card Design.

6. Triggers

Step 6. Allows you to setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



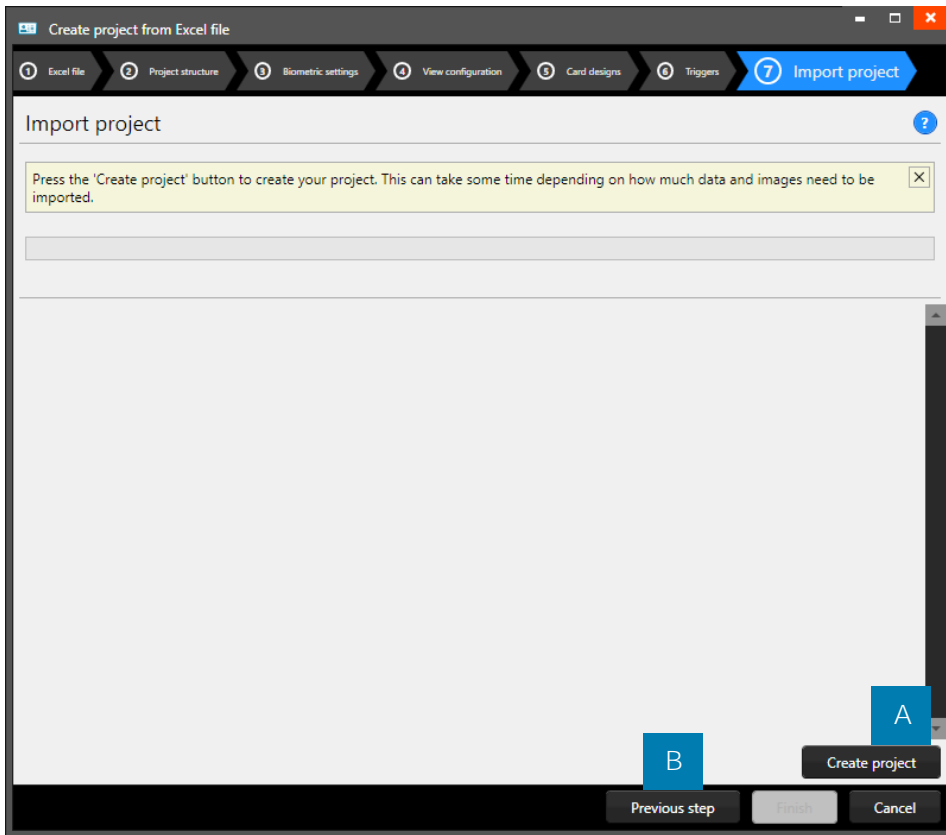
Example of step 6. New project from Excel file: Triggers

- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.
- G. Click on the “Next step” button to go to step 7. and create the project.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on Number type columns). All changes need to be saved before they become active. Please be aware that triggers might cause your original data to change, so make sure no vital data is lost when working with triggers.

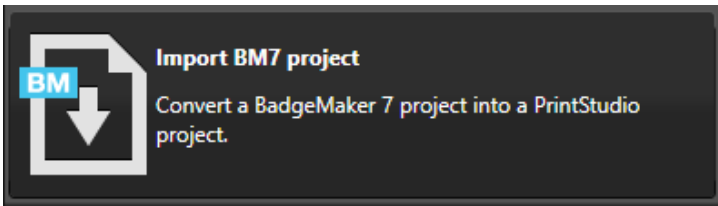
7. Import Project

Step 7. Creates the new project imported from an Excel file as soon as you click on the A. “Create project” button. B. Click on the “Previous step” button to make any changes before creating the project.



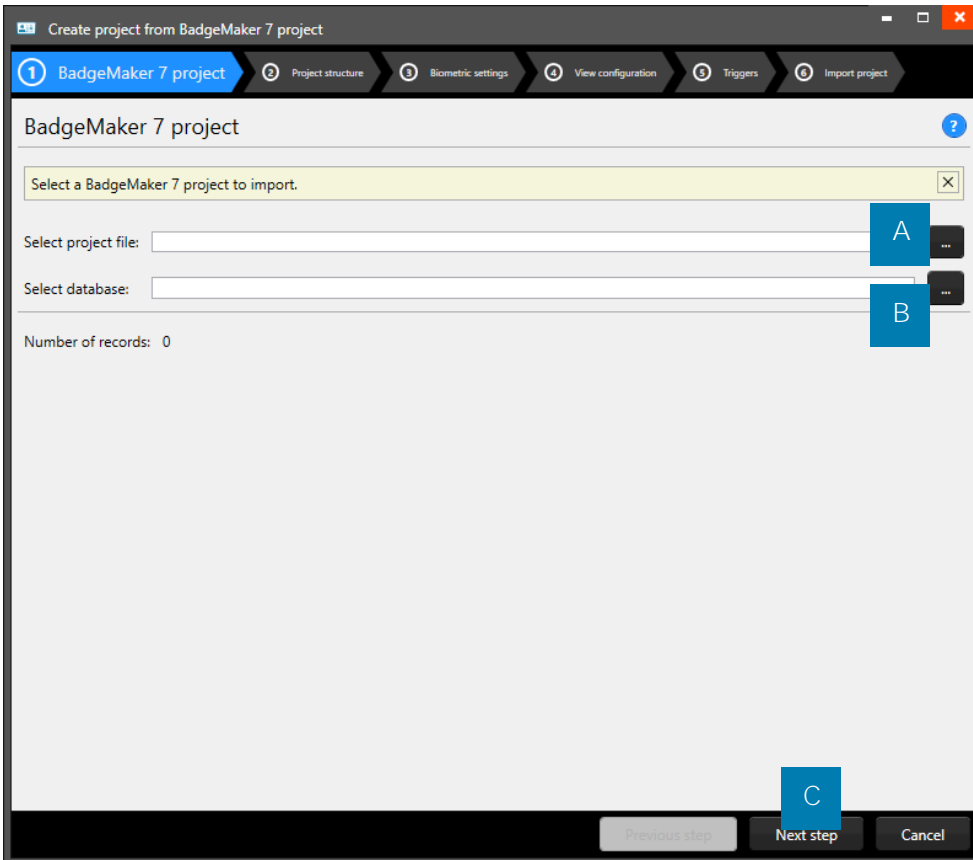
Example of step 6. New project: import new Excel project.

New Project from BadgeMaker 7 Project



1. Select BadgeMaker 7 Project

PrintStudio supports creating new projects based on a former BadgeMaker 7 (Classic) project.



Example of step 1. New project from a BadgeMaker 7 project: Select BadgeMaker 7 Project

- A. Click on this button to select the BadgeMaker 7 project.
- B. Click on this button to select the BadgeMaker 7 database.
- C. Click on the “Next step” button to go to step 2. and check the project structure.

2. Project structure

Step 2. Name the new project and check the imported BadgeMaker 7 structure. Change, delete or add data columns here in the new Project structure.

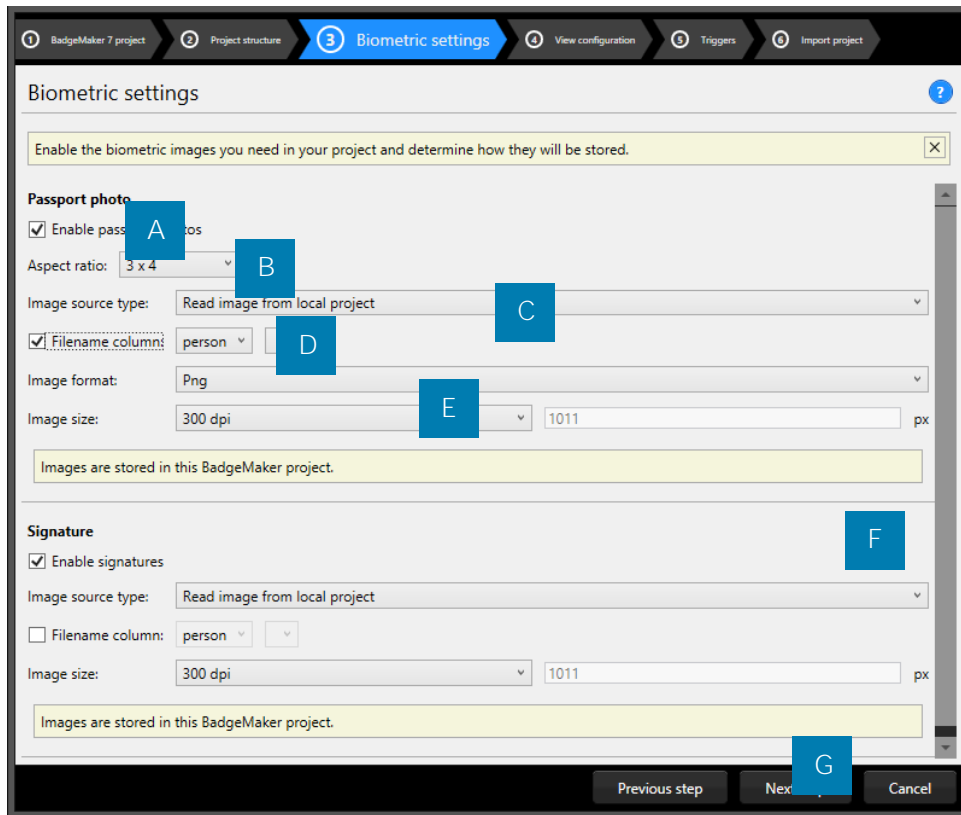
Source column	Name	Type	Required	Unique	Default value	
IDnumber	IDnumber	Whole number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> Is auto-incrementing					
Firstname	Firstname	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Surname	Surname	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Layout	Layout	Text	<input type="checkbox"/>	<input type="checkbox"/>	STUDENTCARD	<input checked="" type="checkbox"/>
Function	Function	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
PlaceOfBirth	PlaceOfBirth	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Email	Email	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Phonenumber	Phonenumber	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Logo	Logo	Text	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Example of step 2. New project from a BadgeMaker 7 project: Project data columns.

- A. Type in the name for your new project.
- B. Put in the column name
- C. Set the data type. Select if the data are number or text for example. The following types of database fields are supported:
 1. **Whole Number**, when selecting this type, you can select 'auto-increment'. When a new record is created the number will be the highest number in the Project increased by 1.
 2. **Text**
 3. **Decimal number**
 4. **Option list**, when this list type is selected, you can add and delete the list values from the list that is presented for this database field. When you change a datatype from text to option list, PrintStudio automatically generates a list based on the data already in that data field.
- D. Check these boxes if the field needs to be "Required" and/or "Unique".
- E. With the default input field, you can add a standard value to your data field, existing empty fields and new records will automatically get the default value you add to this data field.
- F. Click on the "X" button to delete a data field from the project structure setup.
- G. Click on the "Add new property" button and add and describe the data field names you want to use in your new project.
- H. Click on the "Next step" button to go to step 3.

3. Biometric settings

Step 3. Enable biometric images (Passport photos and/or Signatures) for the new project and setup how these images will be stored.



Example of step 3. New project from BadgeMaker 7: Biometric settings

- A. The box for passport photos make photos visible in the project and enables you to add photos.
- B. Determine the ratio of the photo with the drop-down menu.
- C. Select how and where photos will be saved within your project.
- D. Check this box if you want to use data columns to represent the filename.

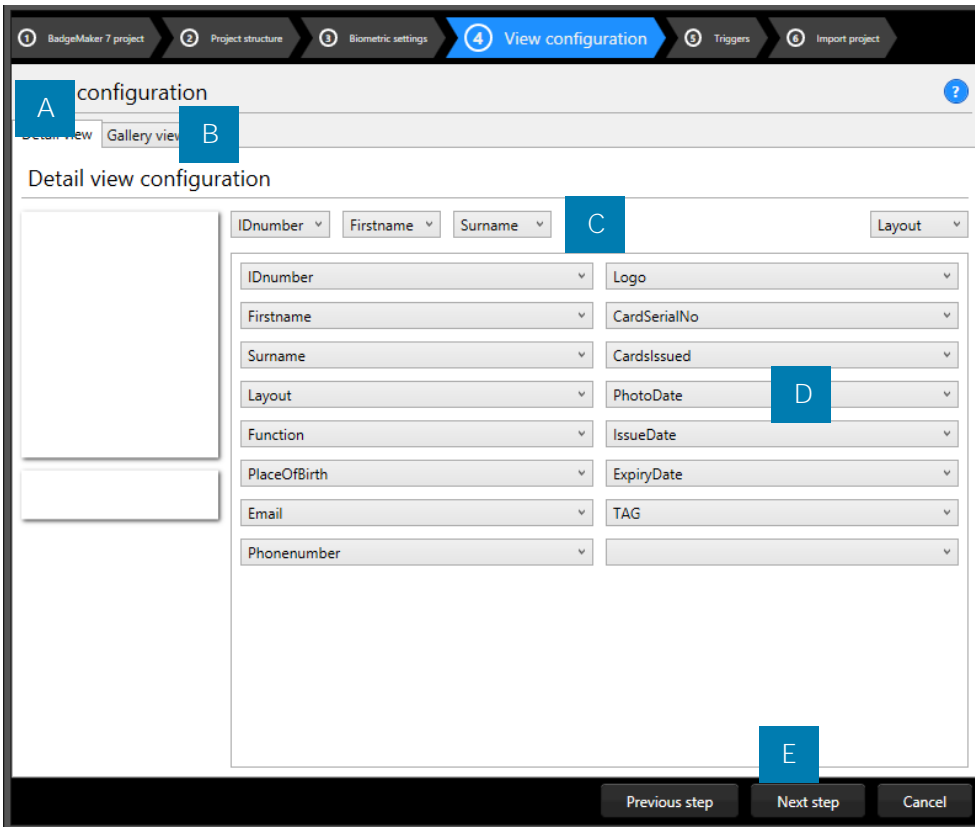


Example of photo's that have filenames corresponding with their ID number.

- E. Select the image format (.png, .jpg or .bmp) the photos need to be saved as within your project.
- F. Select the dpi and size of the photos that will be created and saved within your project.
- G. The checkbox for the signatures allows you to make signatures visible in the project and enables you to add passport photos. The signature section works similar as the passport photo section above. Click on the “Next step” button to go to step 3. and configure the detailed and gallery view

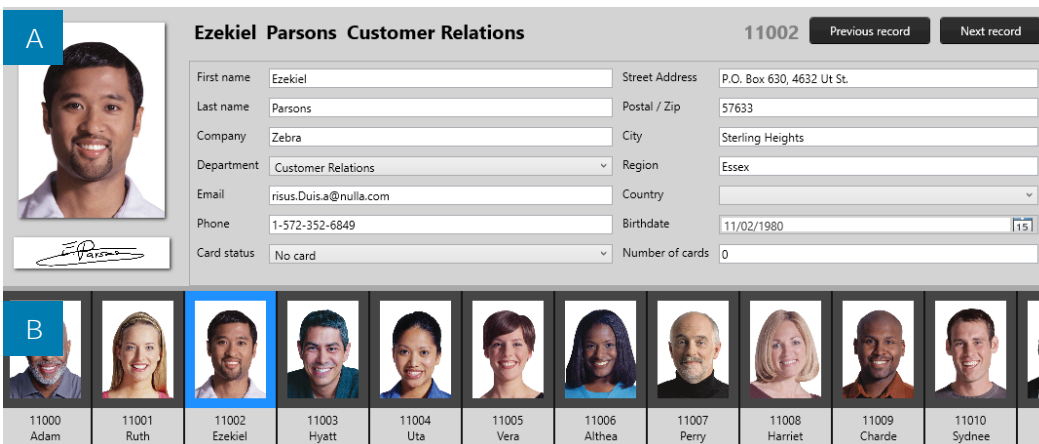
4. View configuration

Step 4. Choose for the default configuration or adjust the setup for the Detailed and Gallery view in the new project.



Example of step 4. New project from BadgeMaker 7: View configuration

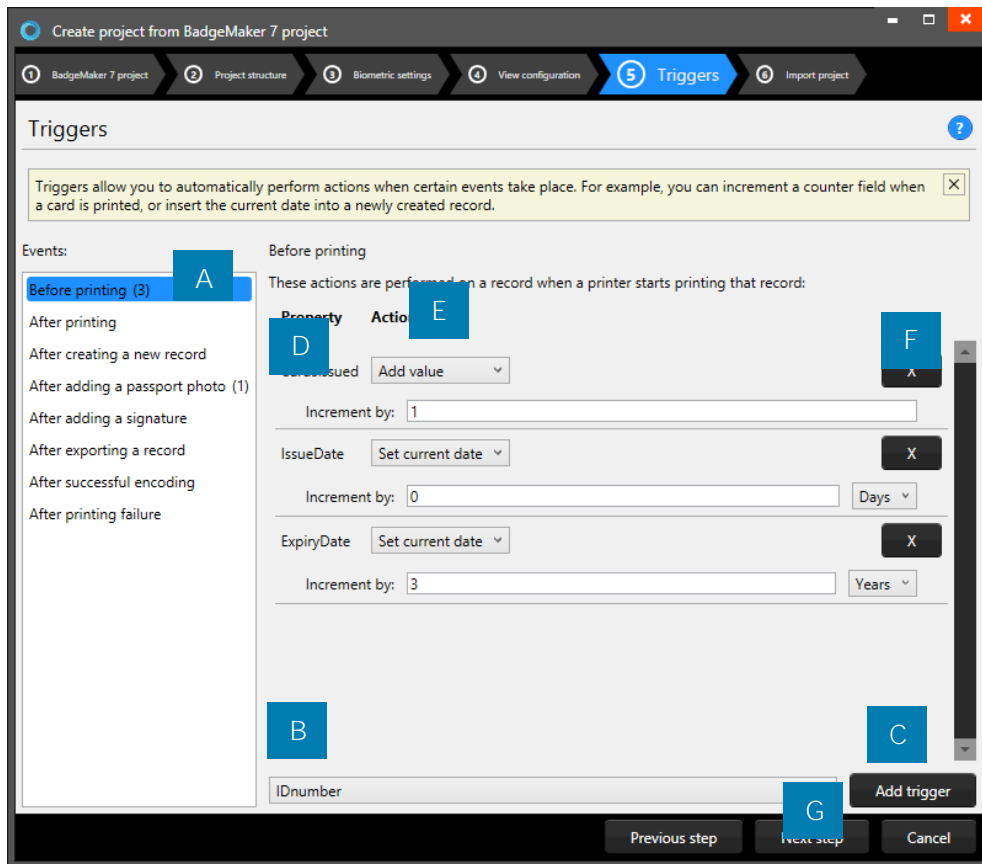
- A. Tab to configure Detailed view showing specific cardholders' information.
- B. Tab to configure Gallery view showing cardholders photos.
- C. Setup the title for the detailed view.
- D. Setup the information that will be available in the detailed view. Use the detailed view to have a clear overview of the card holders' data and make quick adjustments to the data.
- E. Click on the "Next step" button to go to step 5. and add triggers to the project.



Example of the A. detailed view and the B. gallery view

5. Triggers

Step 5. Allows you to setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



Example of step 5. New project from BadgeMaker 7: Triggers

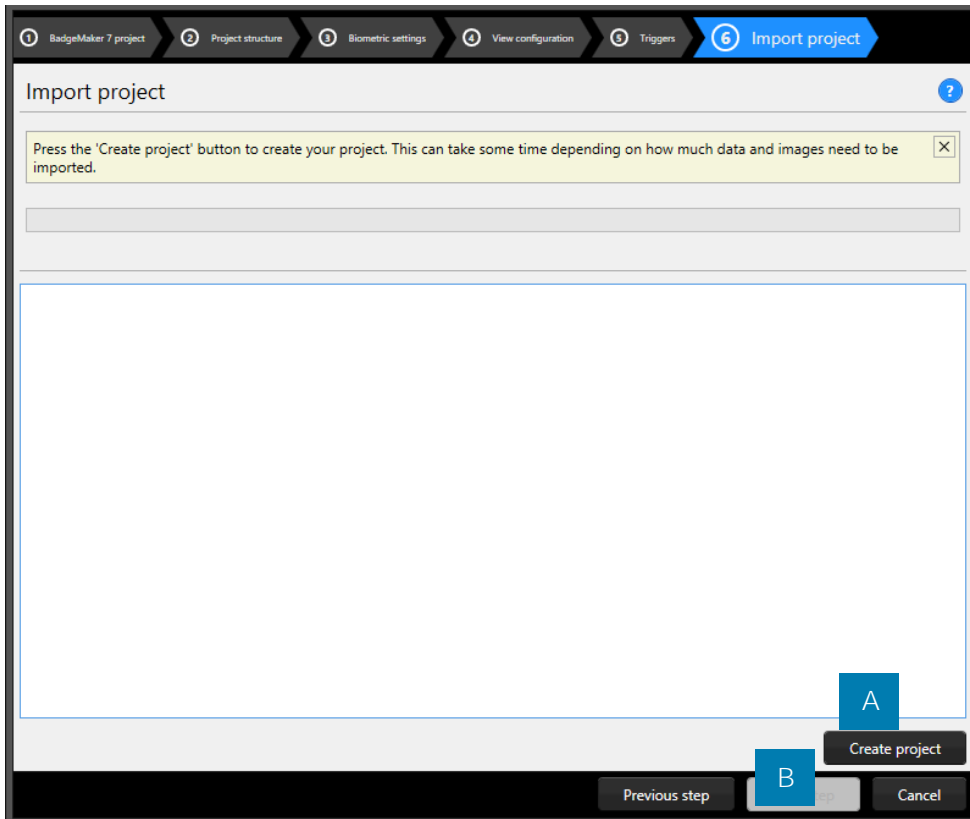
- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to it.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.
- G. Click on the “Next step” button to go to step 6. and create the project.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on Number type columns). All changes need to be saved before they become active. Understand that Triggers might cause your original data to change, so make sure no vital data is lost when working with Triggers.

6. Import Project

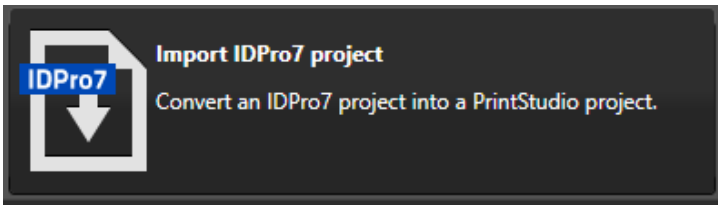
Step 6. Creates the new project based on the BadgeMaker 7 project as soon as you click on the A. “Create project” button.

B. Click on the “Previous step” button to make any changes before creating the project.



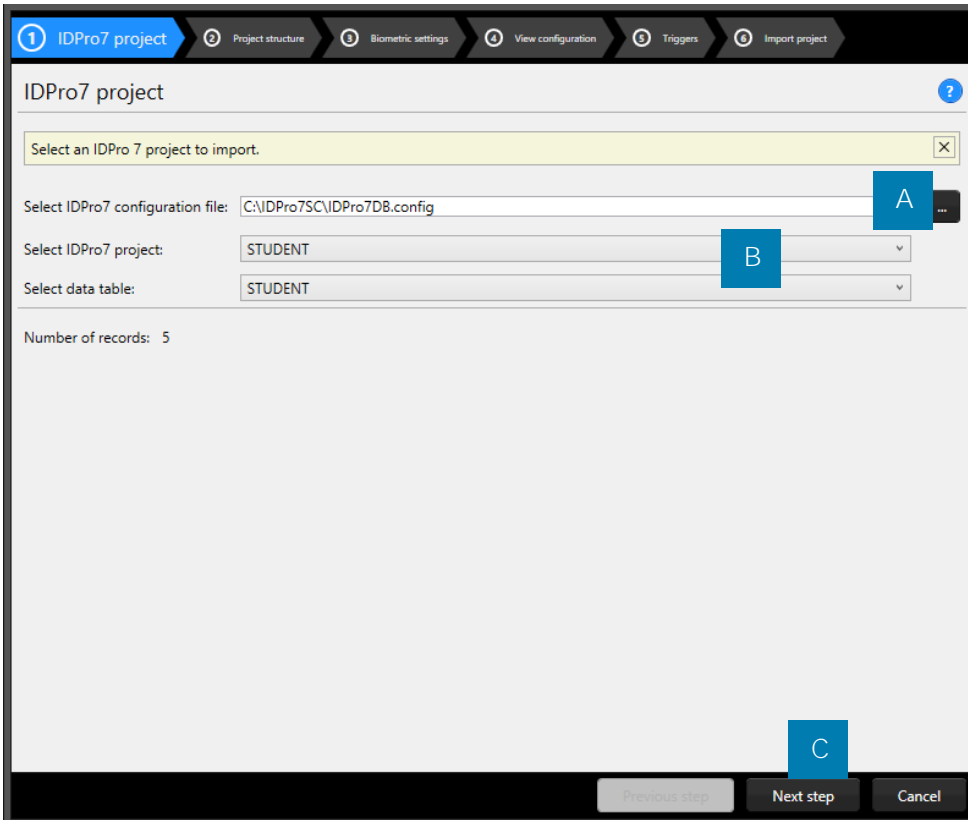
Example of step 6. New project from a BadgeMaker 7 project.

New Project from IDPro 7 Project



1. Select IDPro 7 Project

PrintStudio supports creating new projects based on a former IDPro 7 project.



Example of step 1. New project: Select IDPro 7 Project

- A. Click on this button to select the IDPro 7 configuration file from your computer.
- B. Click on the dropdown menu to select the IDPro 7 project and the table you would like to use to setup the new project.
- C. Click on the “Next step” button to go to step 2. and check or adjust the project structure.

2. Project structure

Step 2. Name the new project and check the imported IDPro 7 structure. Change, delete or add data columns here in the new project structure.

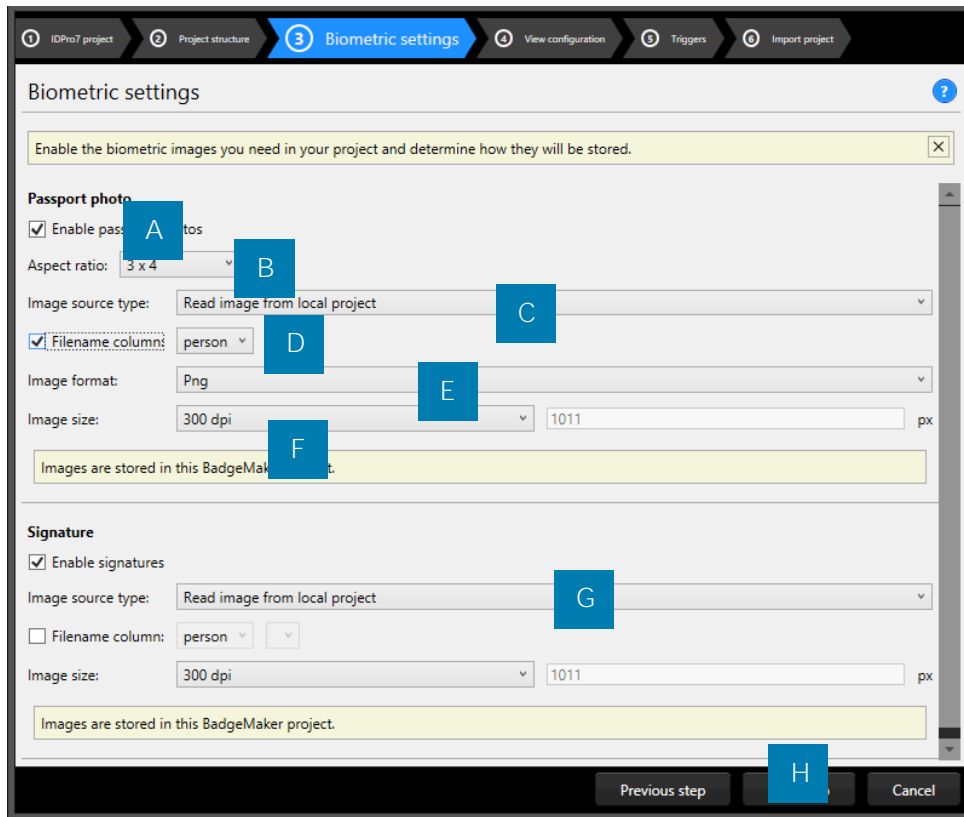
Source column	Name	Type	Required	Unique	Default value	
Student Number	Student Number	Whole number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	X
	<input type="checkbox"/> Is auto-incrementing					
Student Type	Student Type	Options list	<input type="checkbox"/>	<input type="checkbox"/>	Full Time	X
	Expand to view and modify available values					
Firstname	Firstname	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Lastname	Lastname	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Date Of Birth	Date Of Birth	Date	<input type="checkbox"/>	<input type="checkbox"/>	Select a date [15]	X
Card No.	Card No.	Whole number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	X
	<input type="checkbox"/> Is auto-incrementing					
Expiry Date	Expiry Date	Date	<input type="checkbox"/>	<input type="checkbox"/>	Select a date [15]	X

Example of step 2. New project from an IDPro 7 project: Project data columns.

- A. Type in the name for your new project.
- B. Put in the column name
- C. Set the data type. Select if the data are number or text for example. The following types of database fields are supported:
 1. **Whole Number**, when selecting this type, you can select 'auto-increment'. When a new record is created the number will be the highest number in the project increased by 1.
 2. **Text**
 3. **Decimal number**
 4. **Option list**, when this list type is selected, you can add and delete the list values from the list that is presented for this database field. When you change a datatype from text to option list, PrintStudio automatically generates a list based on the data already in that data field.
- D. Check these boxes if the field needs to be "Required" and/or "Unique".
- E. With the default input field, you can add a standard value to your data field, existing empty fields and new records will automatically get the default value you add to this data field.
- F. Click on the "X" button to delete a data field from the project structure setup.
- G. Click on the "Add new property" button and add and describe the data field names you want to use in your new project.
- H. Click on the "Next step" button to go to step 3.

3. Biometric settings

Step 3. Enable biometric images (Passport photos and/or Signatures) for the new project and setup how these images will be stored.



Example of step 3. New project from IDPro 7: Biometric settings

- A. The checkbox for passport photos allows you to make photos visible in the project and enable to add photos.
- B. After checking the box, determine the ratio of the photo in the drop-down menu.
- C. Select how and where photos will be saved that are used in the project.
- D. Check this box to use data columns to represent the filename of the photo (for example a person's ID number).



Example of photo's that have filenames corresponding with their ID number.

- E. Select the image format (png, jpg or bmp) that the image needs to be saved as.
- F. Here you can select what size the photos need to be saved as within your project.
- G. The checkbox for the signature allow you to make signatures visible in the project and enable to add signatures. The signature section works the same as the Passport photo section above.
- H. Click on the "Next step" button to go to step 4. and configure the detailed and gallery view.

4. View configuration

Step 4. Choose the default configuration or adjust the setup for the Detailed and Gallery view in the new project.

View configuration

which properties will be shown in the detail and gallery views. The detail view shows the currently selected record and allows you to edit it. The gallery view shows the passport photo's of multiple records at once.

Detail view Gallery view

Detail view configuration

Student Number Student Type Firstname Lastname

Student Number Issue Date

Student Type No Issued.

Firstname MOD11

Lastname CARDISSUE

Date Of Birth ENCODE

Card No. ESN

Expiry Date FIRSTINITIAL

Issue Number AUDIT

Previous step Next step Cancel

Example of step 4. New project from IDPro 7: View configuration

- A. Tab to configure Detailed view showing specific card holders information.
- B. Tab to configure Gallery view showing card holders photos.
- C. Setup the title for the detailed view.
- D. Setup the information that will be available in the detailed view. Use the detailed view to have a clear overview of the card holders' data and make quick adjustments to the data.
- E. Click on the "Next step" button to go to step 5. and add triggers to the project.

Ezekiel Parsons Customer Relations 11002 Previous record Next record

First name Ezekiel Street Address P.O. Box 630, 4632 Ut St.

Last name Parsons Postal / Zip 57633

Company Zebra City Sterling Heights

Department Customer Relations Region Essex

Email risus.Duis.a@nulla.com Country

Phone 1-572-352-6849 Birthdate 11/02/1980 15

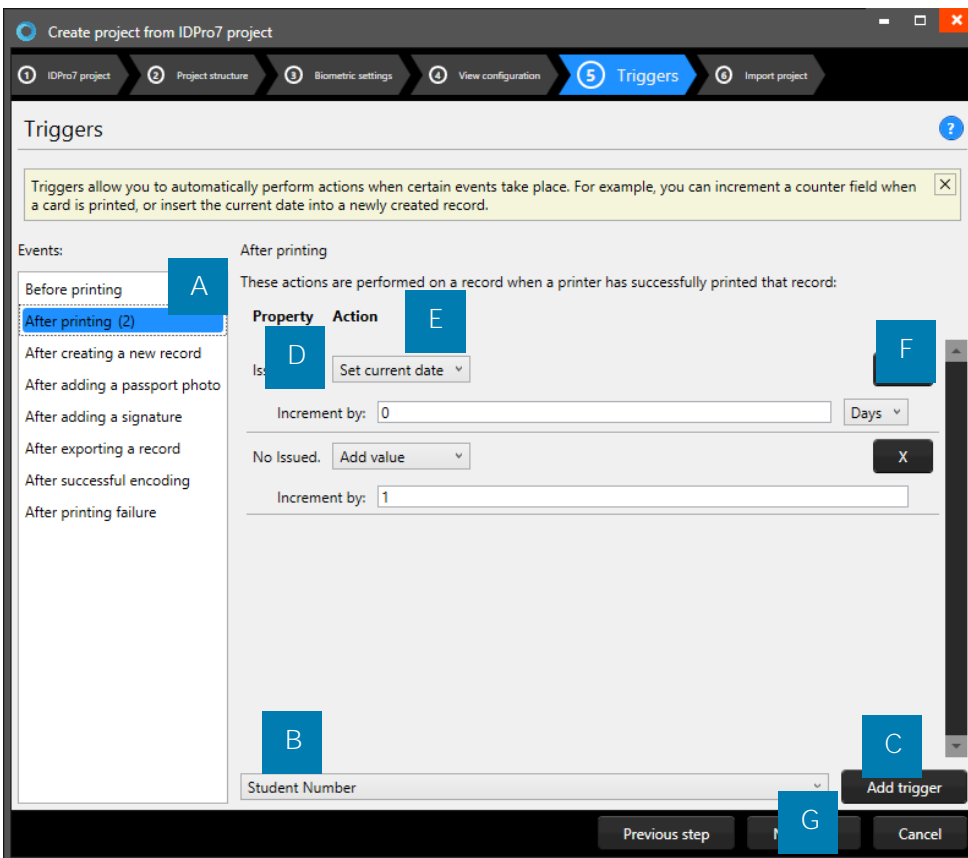
Card status No card Number of cards 0

11000 Adam 11001 Ruth 11002 Ezekiel 11003 Hyatt 11004 Uta 11005 Vera 11006 Althea 11007 Perry 11008 Harriet 11009 Charde 11010 Sydnee

Example of the A. Detailed view and the B. Gallery view

5. Triggers

Step 5. Allows you to setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



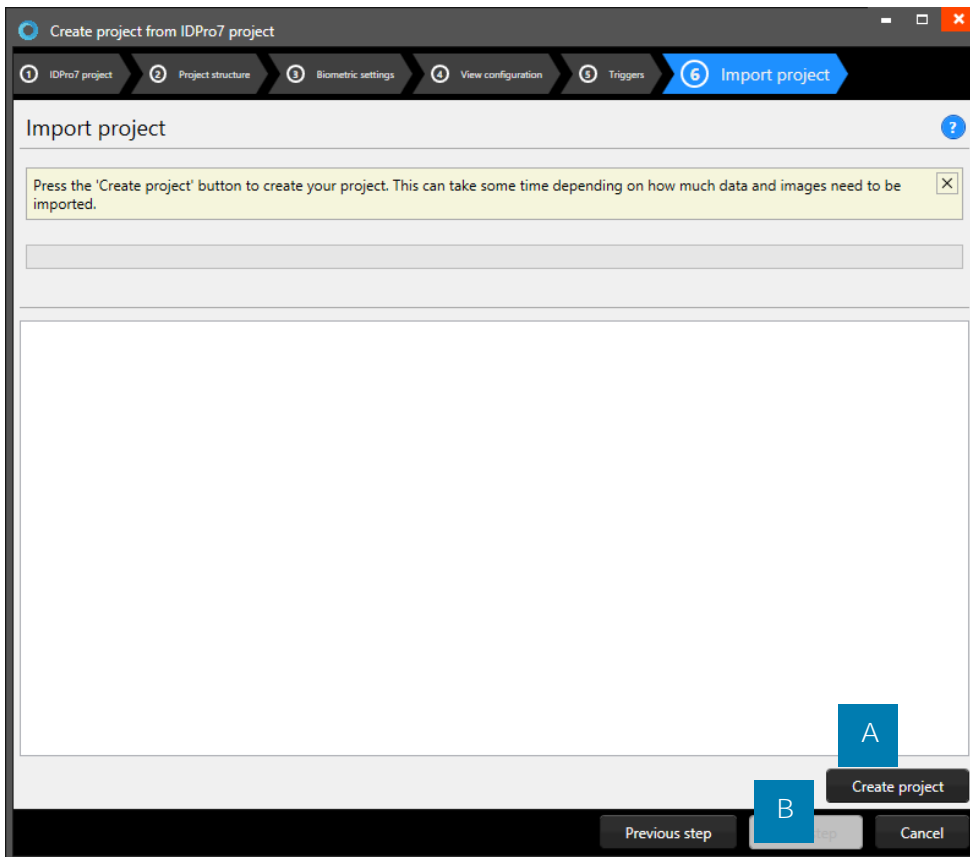
Example of step 5. New project from IDPro 7: Triggers

- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to it.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.
- G. Click on the “Next step” button to go to step 6. and create the project.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on Number type columns). All changes need to be saved before they become active. Please be aware that triggers might cause your original data to change, so make sure no vital data is lost when working with triggers.

6. Import Project

Step 6. Creates the new project based on the IDPro 7 project as soon as you click on the A. “Create project” button. B. Click on the “Previous step” button to make any changes before creating the project.



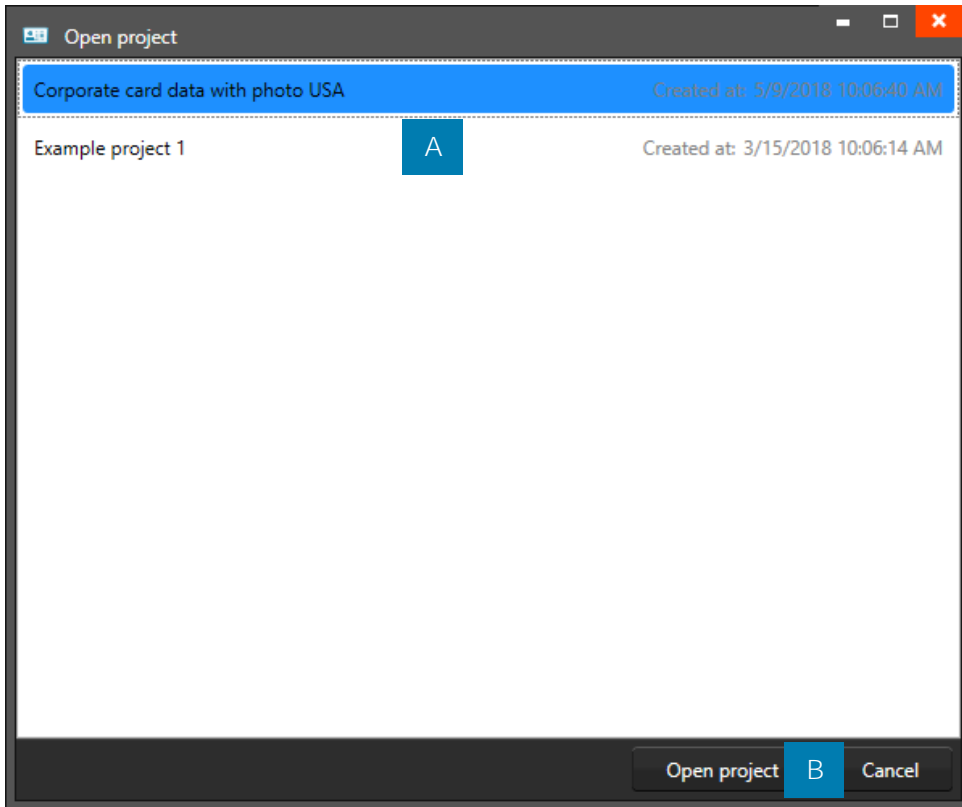
Example of step 6. New project: import IDPro 7 project.

PrintStudio Open Project

PrintStudio

Open Project

To open an existing Project select the “Open” link or button. All available existing projects are displayed, select the project that needs to be opened.



Example of the Open existing project popup window.

- A. Select one of the existing projects
- B. Click on the “Open project” button.

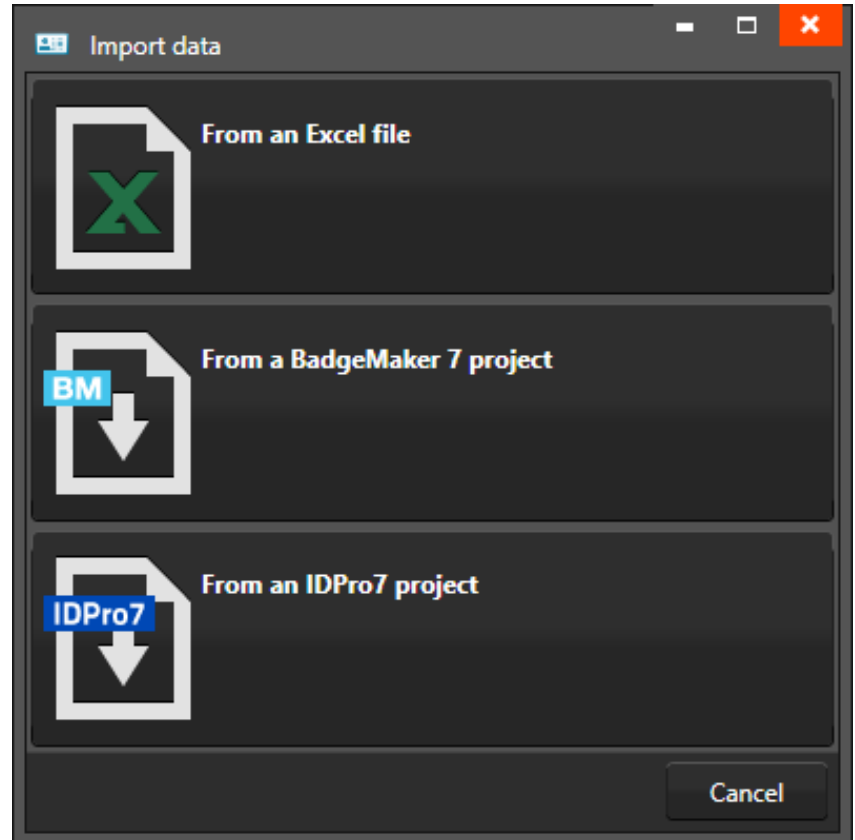
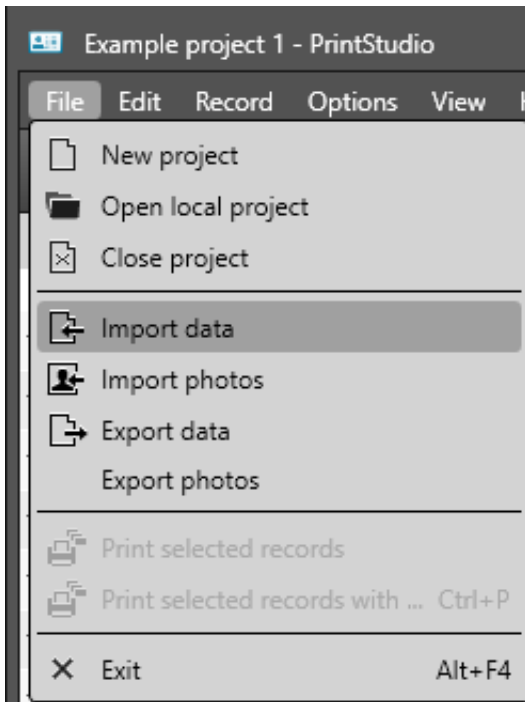
PrintStudio Import Data

PrintStudio

Import Data

Import data into a PrintStudio project if more data from for example, a former project or an output from an HR-system is needed. PrintStudio offers the import of data from an Excel/CSV file, BadgeMaker 7 project or an IDPro 7 project.

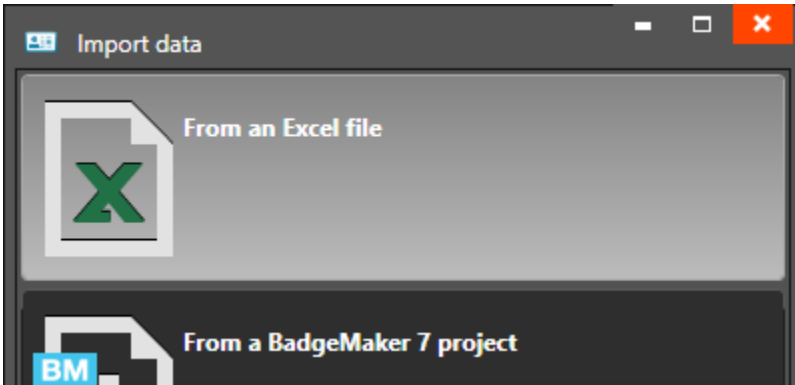
Go to the Main Menu and click on “File”, select “Import data”:



Example of the import data popup window.

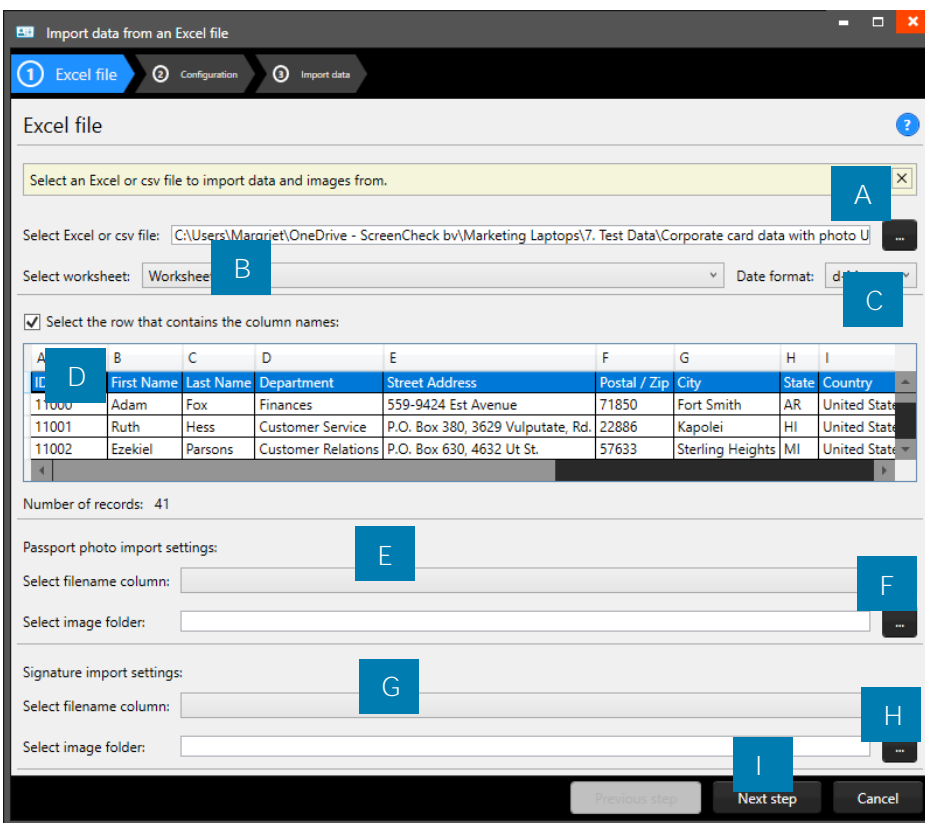
Import an Excel file or CSV data file

To import data into the PrintStudio Project from an Excel file click on the first button “From an Excel file”.



1. Data source

Step 1. Select the Excel file and Worksheet needed for the import of the data. A Photo source and/or Signature Source can be added if needed.

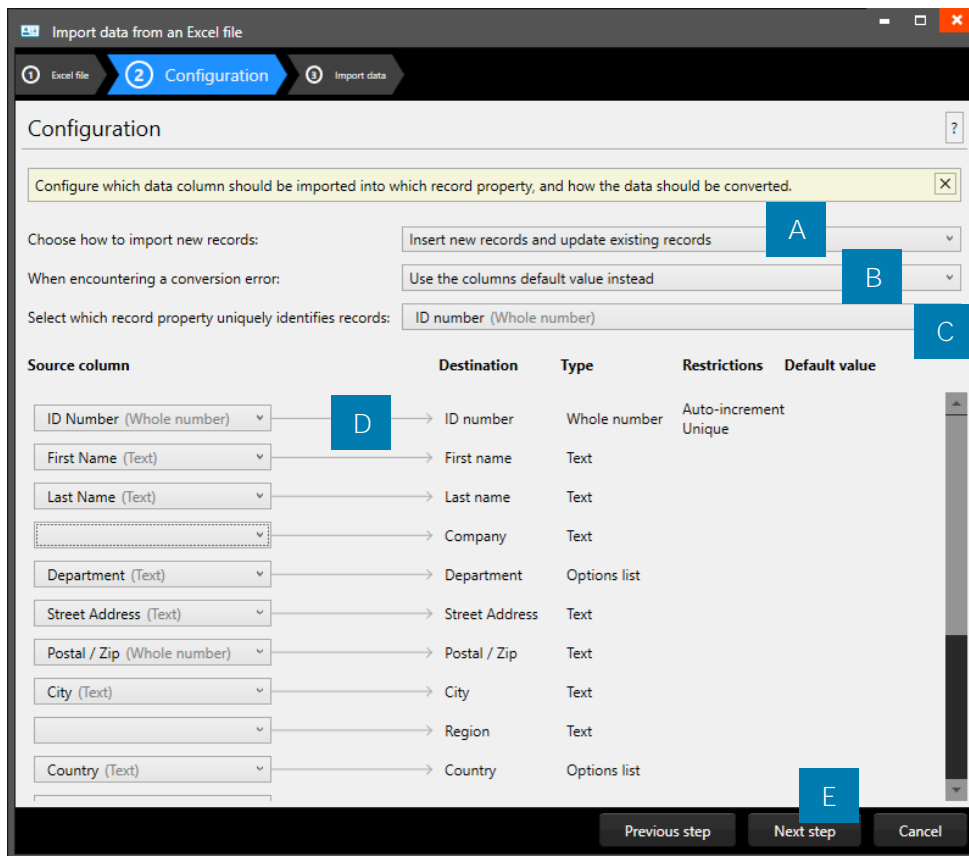


Example of the import data popup window.

- A. Click on this button and select the Excel/CSV file you want to import and select the worksheet you want to use from the drop-down menu below.
- B. Select the row that contains the column names.
- C. Select the column that connects with the unique photo names (for example: ID number or index)
- D. Select the folder that contains the card holders' photos
- E. Select the column that connects with the unique signature names (for example: ID number or index)
- F. Select the folder that contains the signature images
- G. Click on the “Next step” button to continue to second step.

2. Configuration

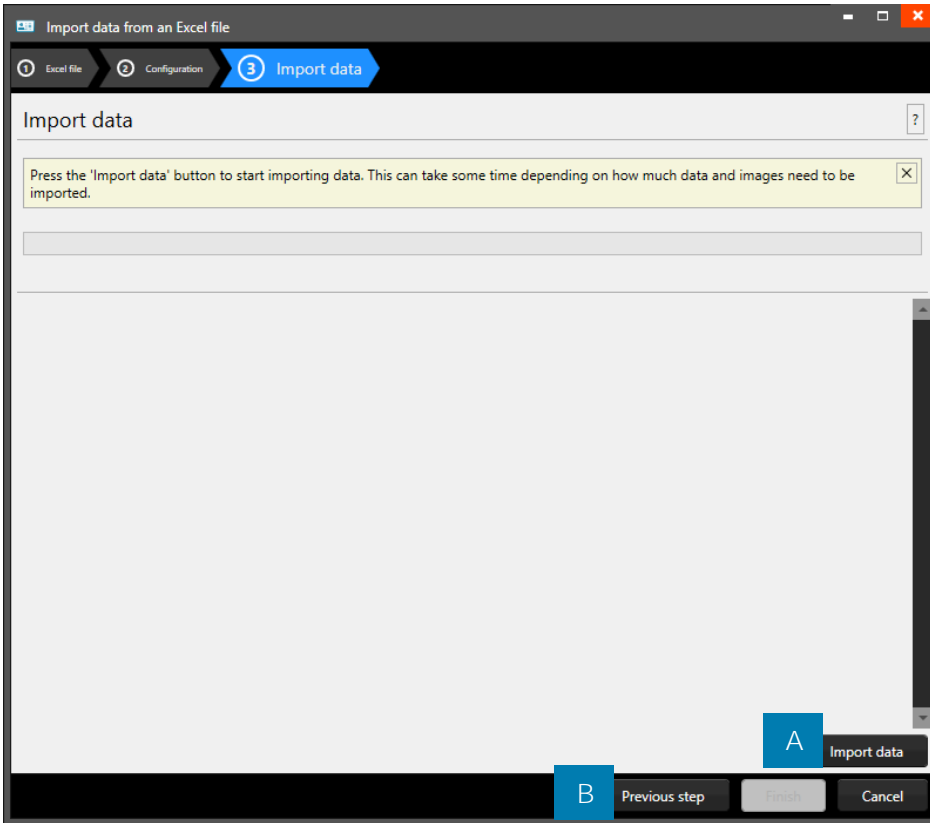
Step 2. Configure how the data will be imported into the project and handles the existing data.



Example of the import Excel/CSV data popup window.

- A. Choose how imported data/new records will be handled. The drop-down menu gives you three options
- B. Select what happens when encountering a conversion error.
- C. Select one of the fields of the excel data which uniquely identifies data in the data source.
- D. Connect the source columns with the destination columns, PrintStudio will connect the columns with similar names automatically.
- E. Click on the “Next step” button to continue to import the data.

3. Import data

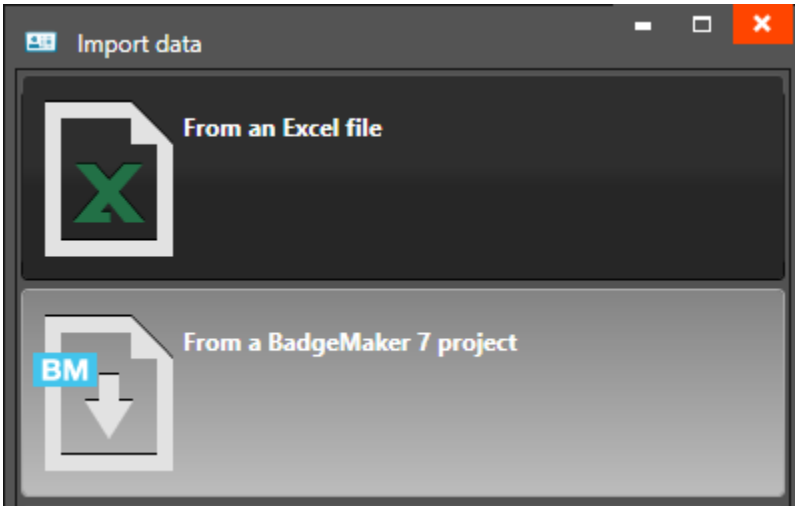


Example of step 3. Import data

Step 3. is processing the import of the Data. A. Click on the “[Import data](#)” button to start importing the data from your Excel file. B. Click on the “[Previous step](#)” button to make any changes before creating the project.

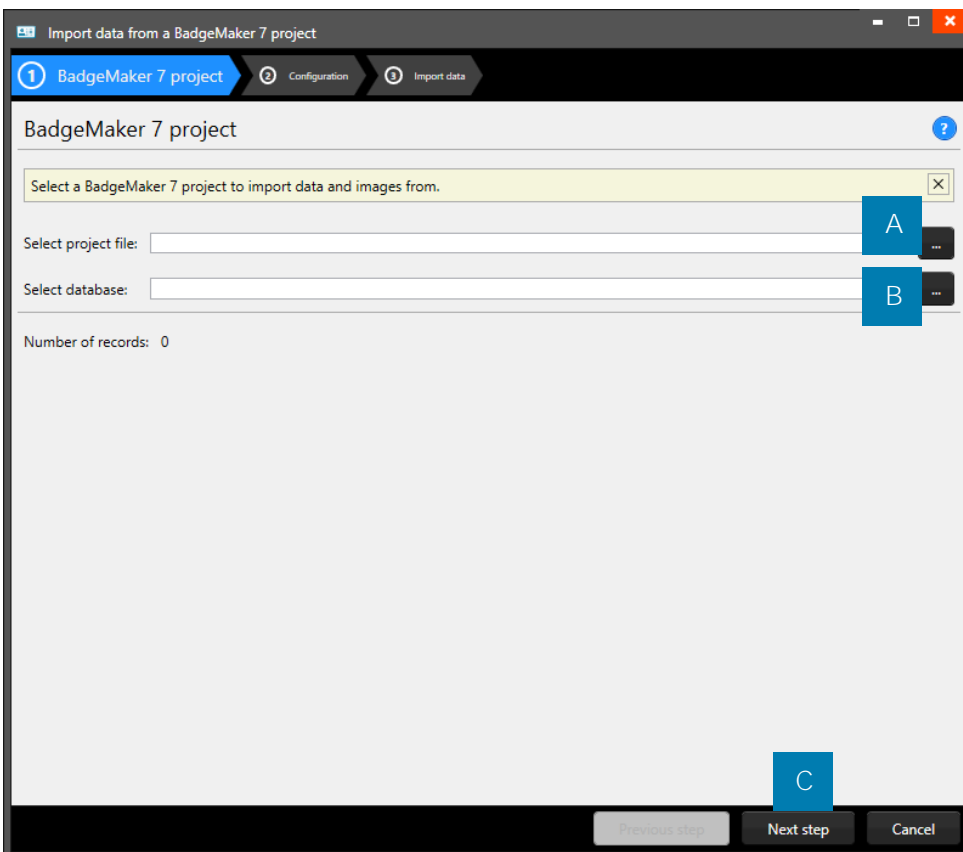
Import BadgeMaker 7 project data

To import data into the project from a BadgeMaker 7 project click on the first button “From a BadgeMaker 7 project”.



1. Data source

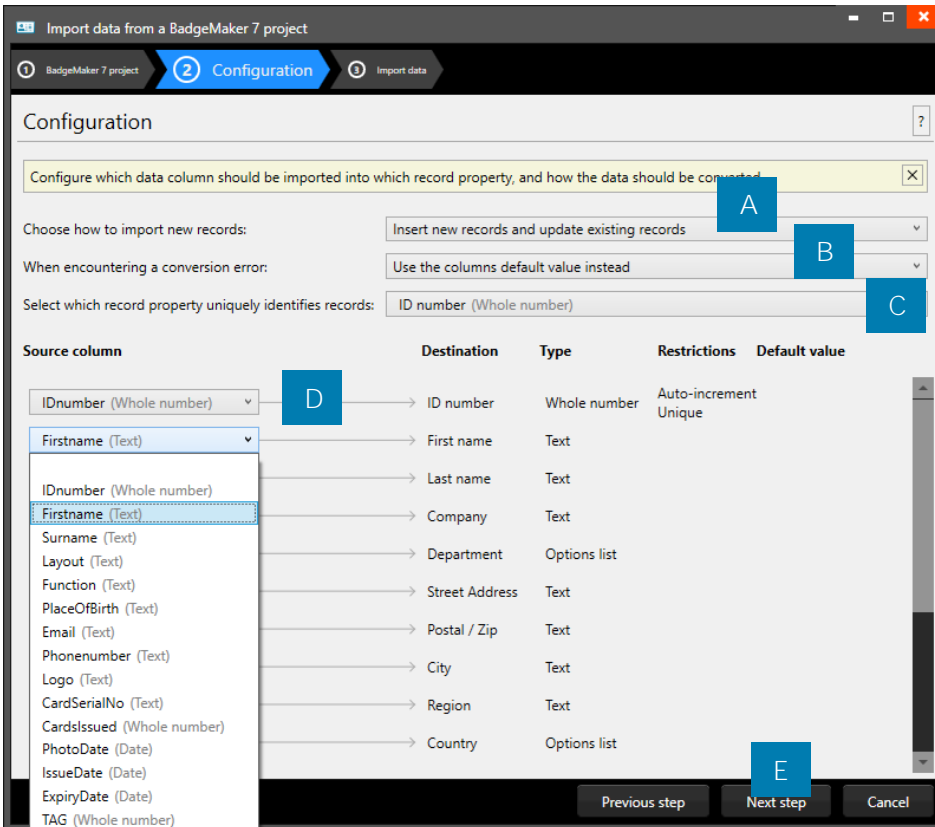
Step 1. Select the BadgeMaker 7 project file and database needed for the import of the data.



Example of the import data popup window.

- A. Click on this button to select the BadgeMaker 7 project from your computer.
- B. Click on this button to select the BadgeMaker 7 database from your computer.
- C. Click on the “Next step” button to go to step 2.

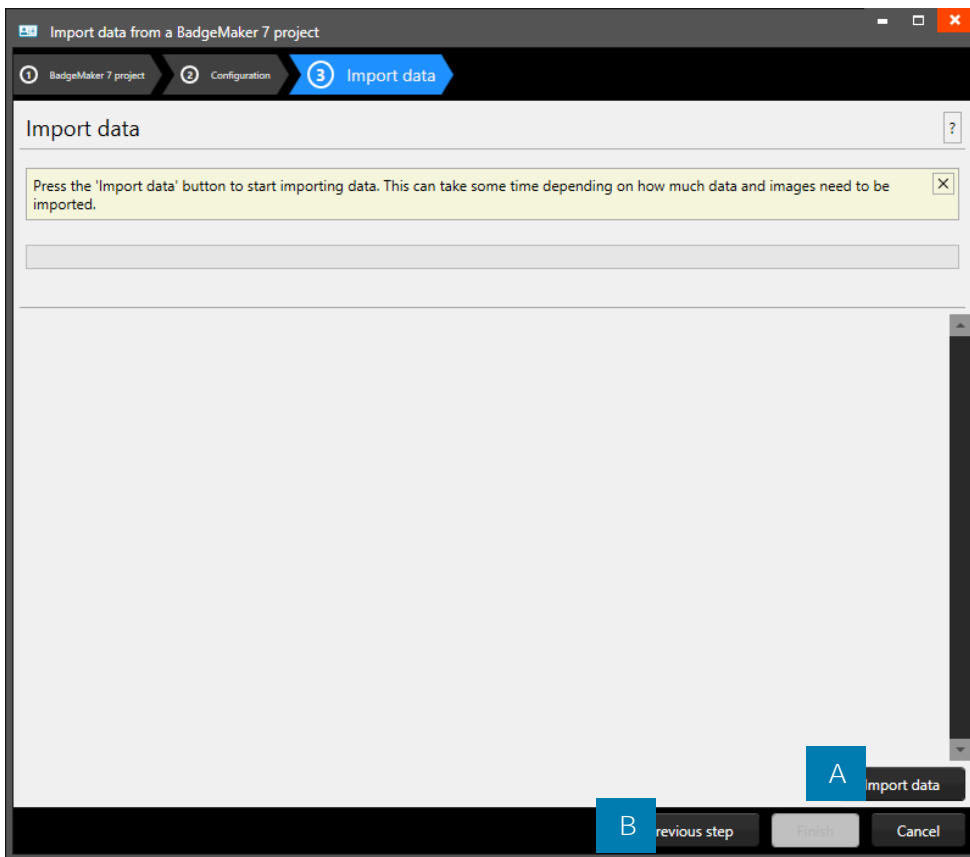
2. Configuration



Example of the import of BadgeMaker 7 data popup window.

- A. Choose how imported data/new records will be handled. The drop-down menu gives you three options
- B. Select what happens when encountering a conversion error.
- C. Select one of the fields of the excel data which uniquely identifies data in the data source.
- D. Connect the source columns with the destination columns, PrintStudio will connect the columns with similar names automatically.
- E. Click on the “Next step” button to continue to import the data.

3. Import data

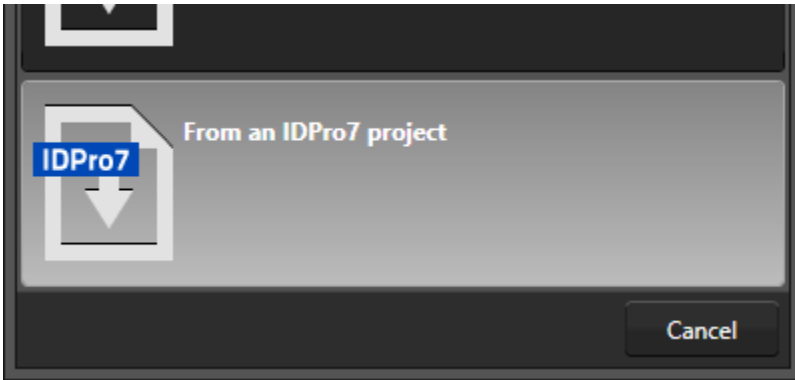


Example of step 3. Import data

Step 3. is processing the import of the Data. A. Click on the “Import data” button to start importing the data from your Excel file. B. Click on the “Previous step” button to make any changes before creating the project.

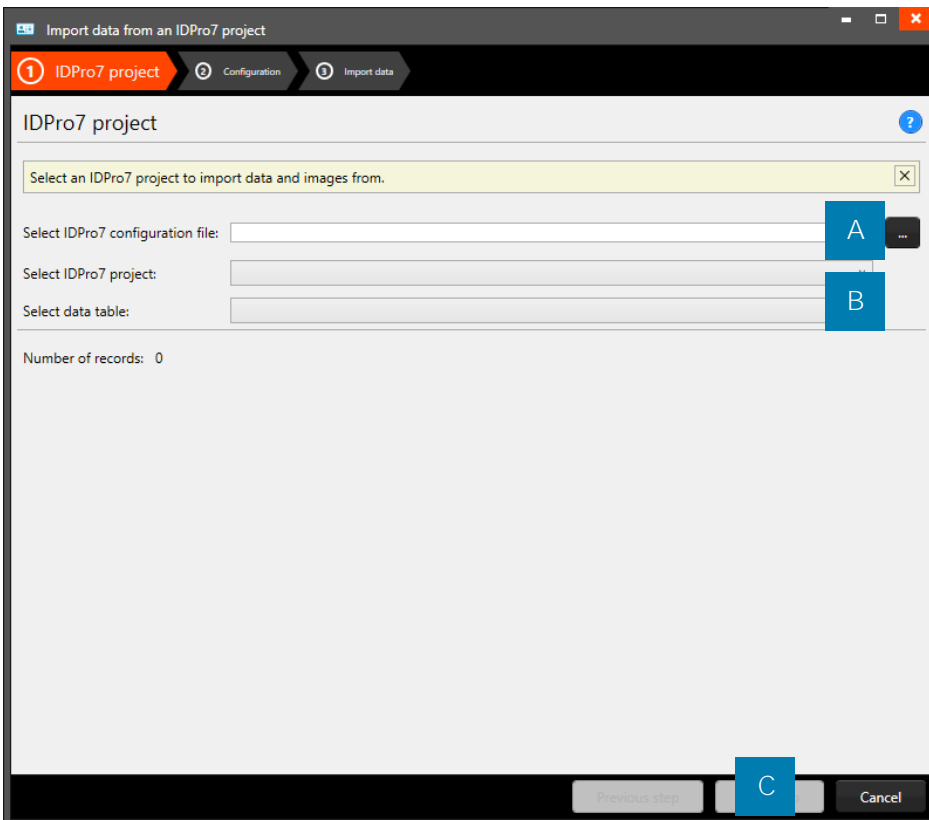
Import IDPro 7 data

To import data into the PrintStudio Project from an IDPro 7 project click on the first button “From an IDPro 7 project”.



1. Data source

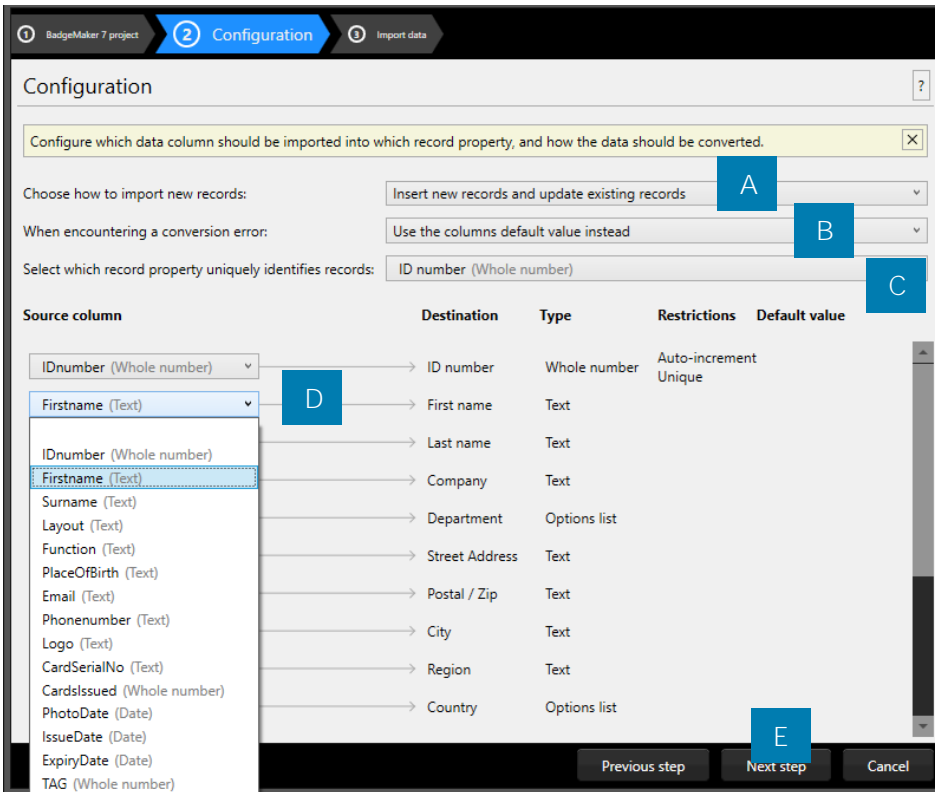
Step 1. Select the IDPro 7 configuration file and the project needed for the import of the data.



Example of the import data popup window.

- A. Click on this button to select the IDPro 7 configuration file from your computer.
- B. Click on the dropdown menu to select the IDPro 7 project and table.
- C. Click on the “Next step” button to go to step 2.

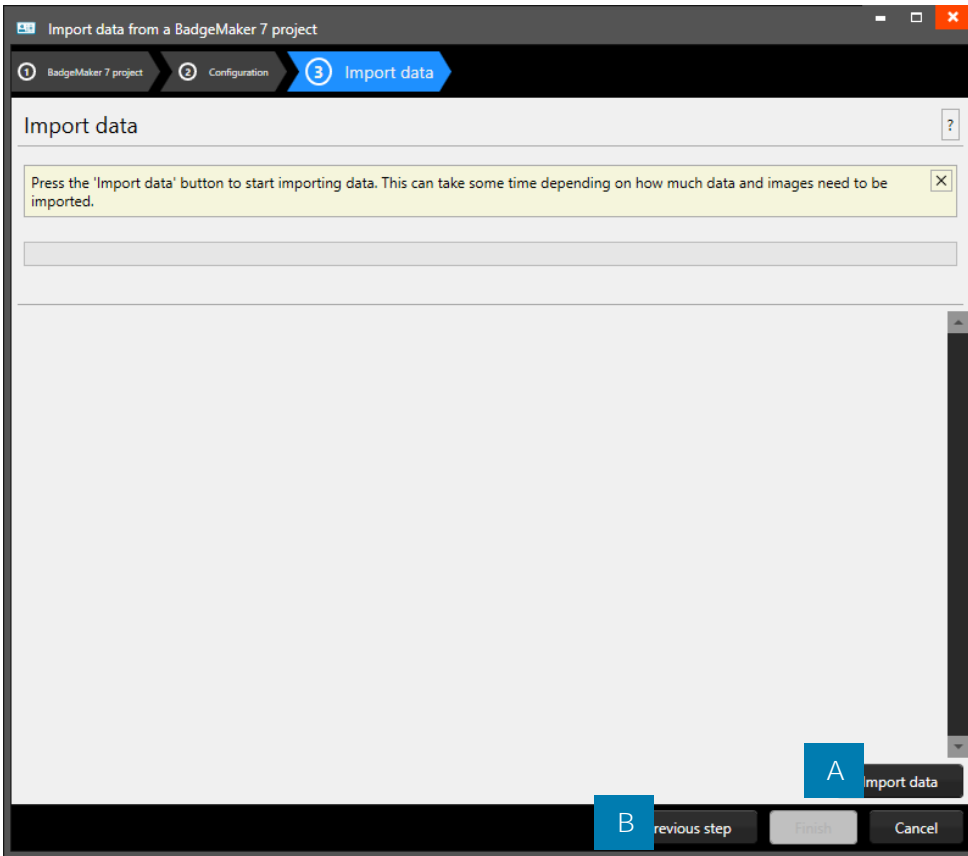
2. Configuration



Example of the import of IDPro 7 data popup window.

- A. Choose how imported data/new records will be handled. The drop-down menu gives you three options.
- B. Select what happens when encountering a conversion error.
- C. Select one of the fields of the excel data which uniquely identifies data in the data source.
- D. Connect the source columns with the destination columns, PrintStudio will connect the columns with similar names automatically.
- E. Click on the “Next step” button to continue to import the data.

3. Import data



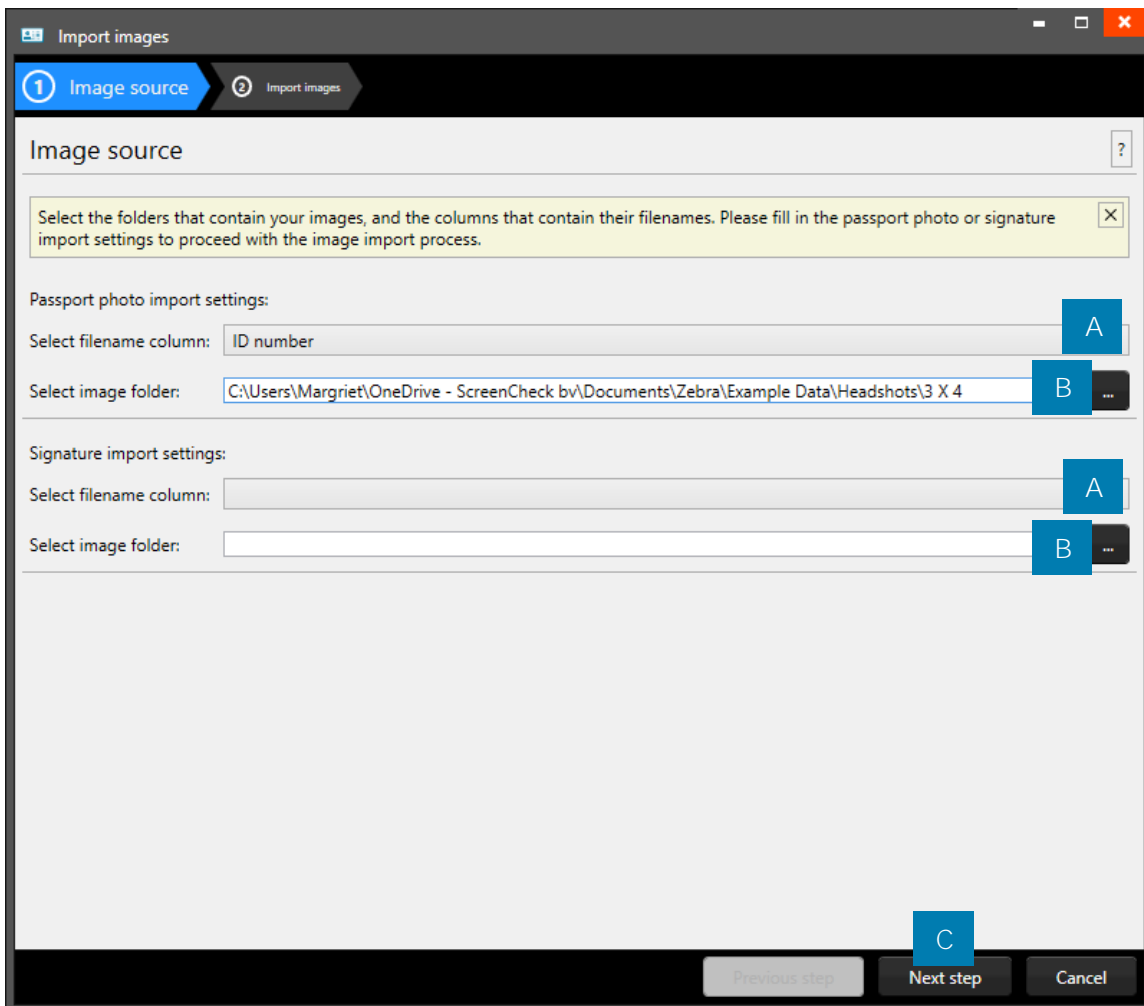
Example of step 3. Import data

Step 3. is processing the import of the Data. A. Click on the “Import data” button to start importing the data from your Excel file. B. Click on the “Previous step” button to make any changes before creating the project.

PrintStudio

Import Photos

At step 1. Biometric data you have the option to select the folders you would like to import from for your passport photos and or signature images.



Example of importing biometric data.

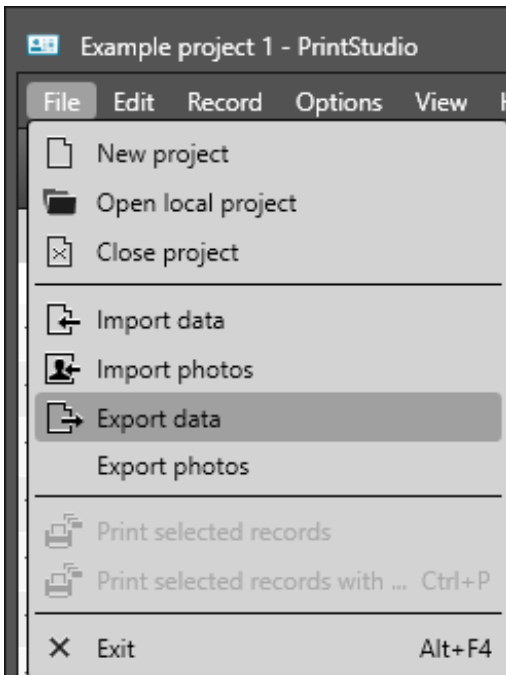
- A. Select the data field that contains the unique data like the photos and or signature names.
- B. Click on this button and select the photos and or signatures folder you want to import from. The images need to have a unique name that can be connected to one of the unique fields.
- C. Click on the “Next step” button to continue to import the photos and or signatures.

PrintStudio Export Data

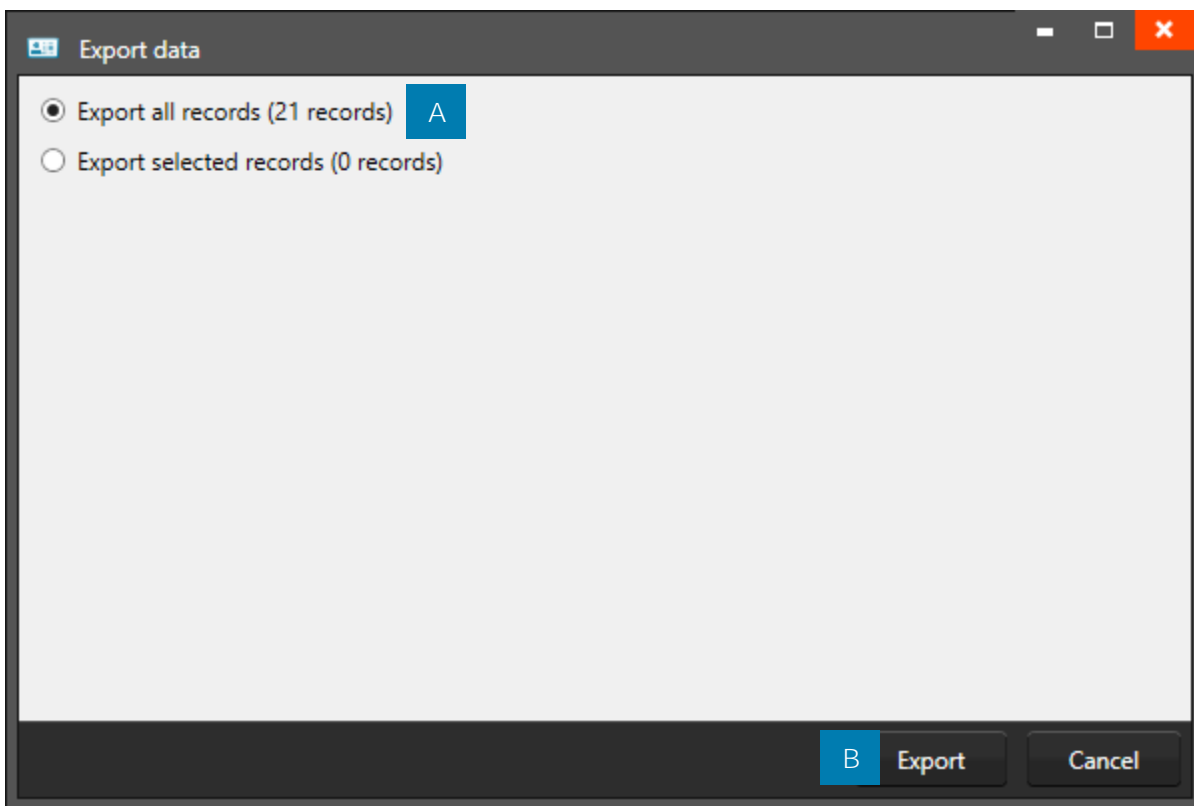
PrintStudio

Export Data

To export data first select the records you would like to export. Select all records or make a selection of records. Go to the Main menu, click on “File” and select “Export data” in the submenu:



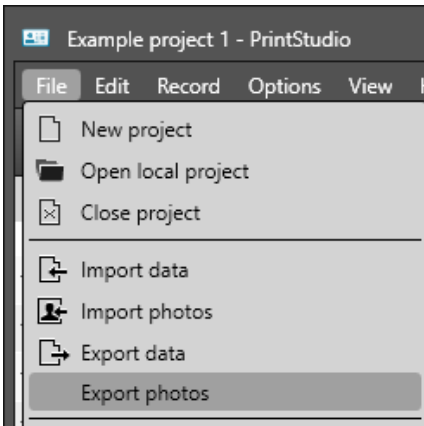
- A. Select to export all records or a selection of records.
- B. Now click on the “Export” button and a CSV file will be generated.



Example of exporting PrintStudio project data.

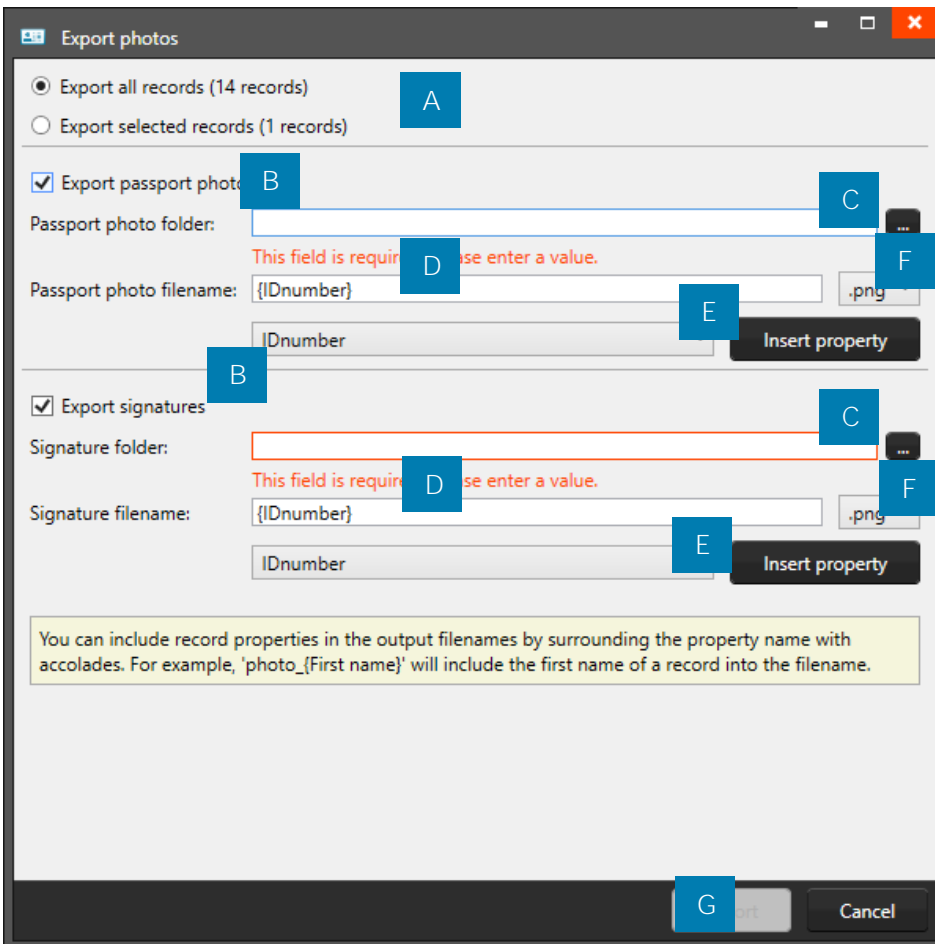
PrintStudio

Export Photos



The Export photos function gives the option to export passport photos and or signature images.

To export data first select the records you would like to export. Select all records or make a selection of records. Go to the Main menu, click on “File” and select “Export photos” in the submenu.



Example of exporting CardStudio project images.

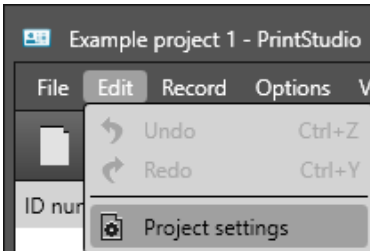
- A. To export data first select if you would like to export all records or a selection you made.
- B. Check the boxes to choose to export photos and/or signatures.
- C. Click on this button and select the photos and or signatures folder to export to.
- D. Give the exported images a name.
- E. You can include column properties in the output filenames by selecting a column and clicking on “insert property”. For example: “{ID number}”.
- F. Select the file type: jpg, png or bmp.
- G. Click on the “Next step” button to continue to export the photos and or signatures.

PrintStudio Project Settings

PrintStudio

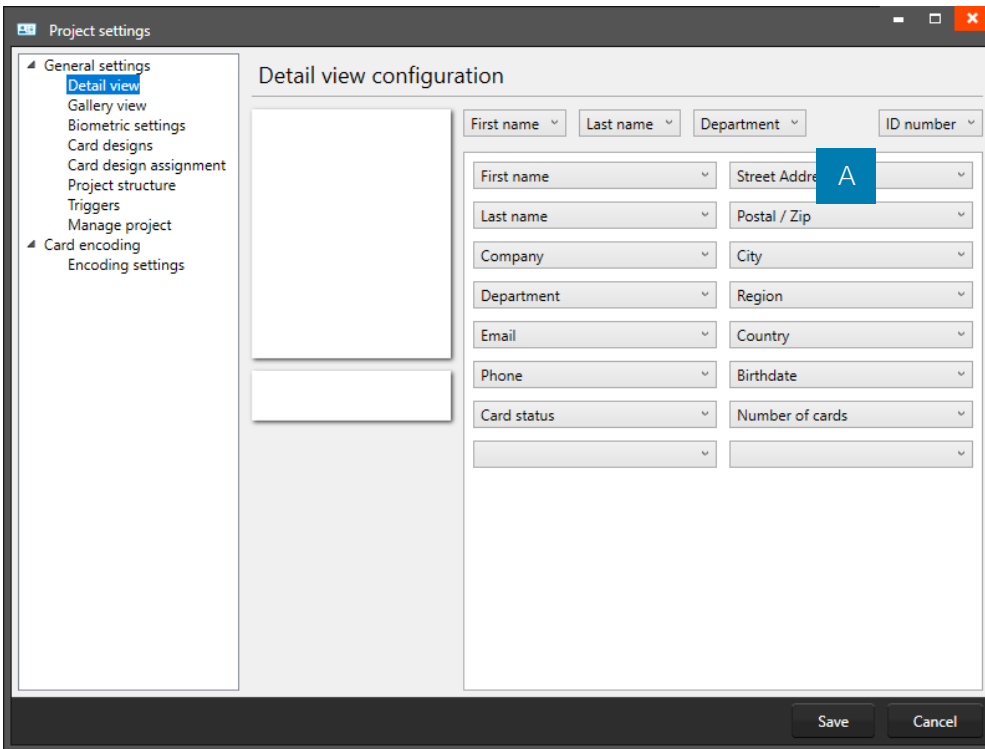
Project Settings

To change the Project Settings go to the Main Menu, click on “Edit” and select “Project Settings” in the sub menu. Go to Project Settings to change the setup, project structure or to add and manage Card Designs in your project. Make sure you click on the “Save” button when making changes.



Detail View

Configure the layout of the detail view. The detail view is the view shown in the middle of the dashboard, giving you detailed information of a record. Use the detailed view to quickly adjust record data.



Example of the Project settings: Detailed view configuration

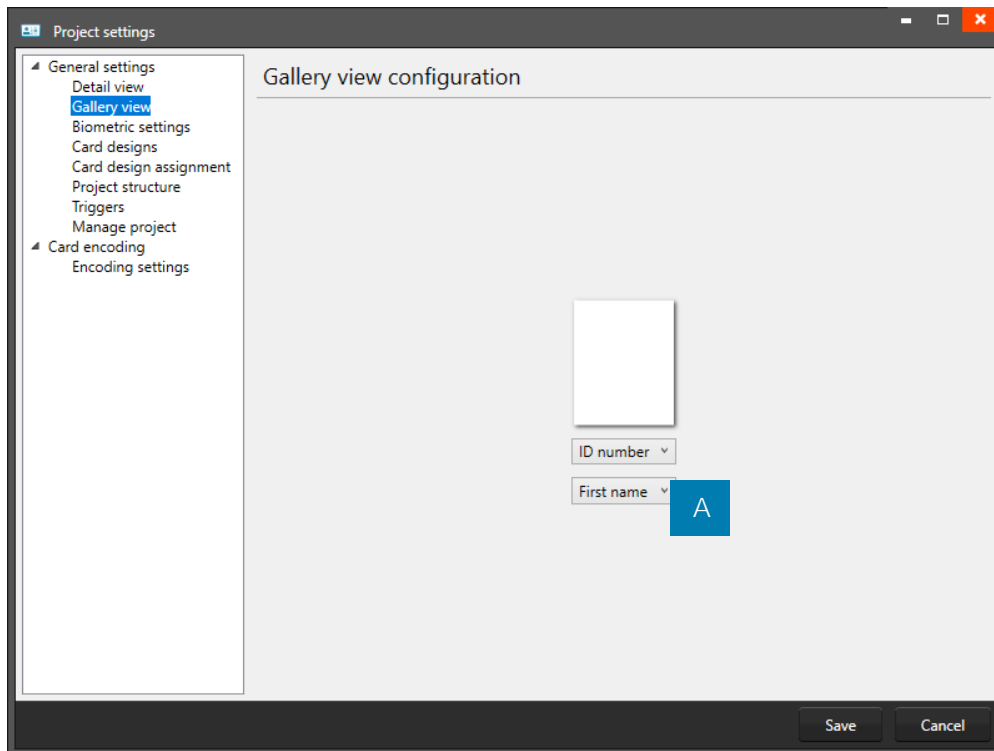
- A. Use the drop-down menus to select where you want to see certain data fields. At the top are usually the most important fields selected like the first name, last name and ID number.



Example of the A. Detailed view in the PrintStudio Dashboard.

Gallery view

The Gallery View is the Photo slide presentation. Gallery view lets you find a persons record very easy when people are showing up at the front desk to change or replace a card. In the Gallery setting you can select 2 (two) database fields that are presented with the Photo. You can select First name and Last name or chose for the record ID or any other database field.



Example of the Preview Project settings: Gallery view

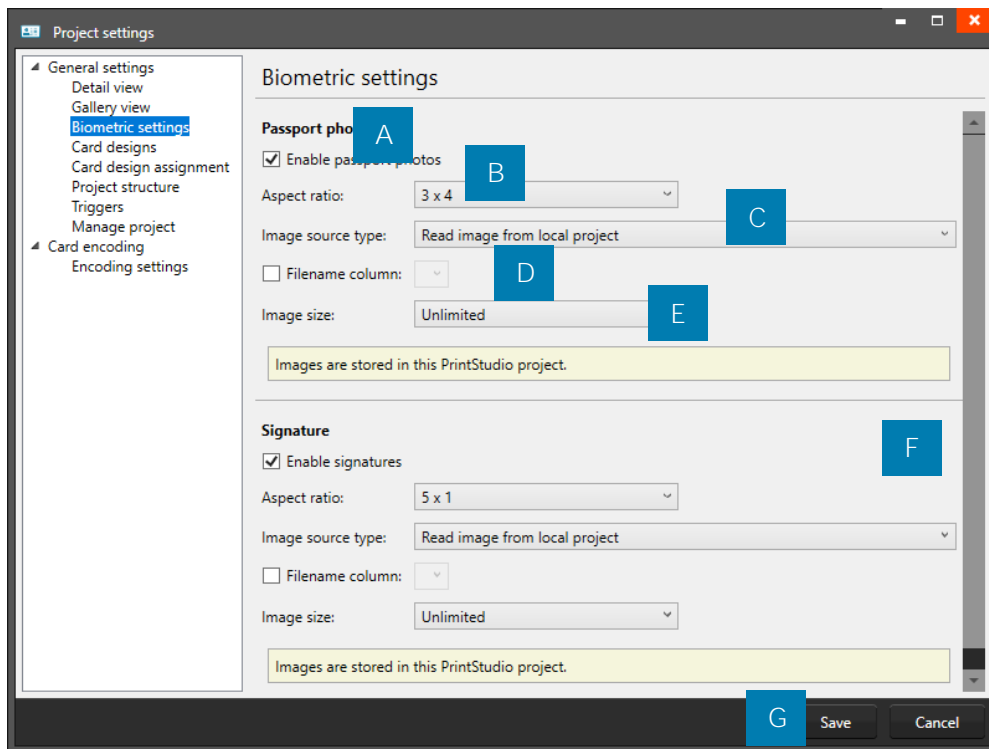
- A. In the Gallery setting you can select 2 (two) database fields that are presented with the Photo. You can select First name and Last name or chose for the record ID or any other database field.



Example of the A. Gallery view in the PrintStudio Dashboard.

Biometric settings

The Biometric settings is for managing the Passport Photos and/or Signatures in the project. Add Photo's and Signatures or adjust the settings for the photos or signatures.



Example of the Project settings: Biometric settings

- A. The checkbox for passport photos allows you to make photos visible in the project and enables you to add photos.
- B. Determine the ratio of the photo with the drop-down menu.
- C. Select how and where photos will be saved within your project.
- D. Check this box if you want to use data columns to represent the filename.

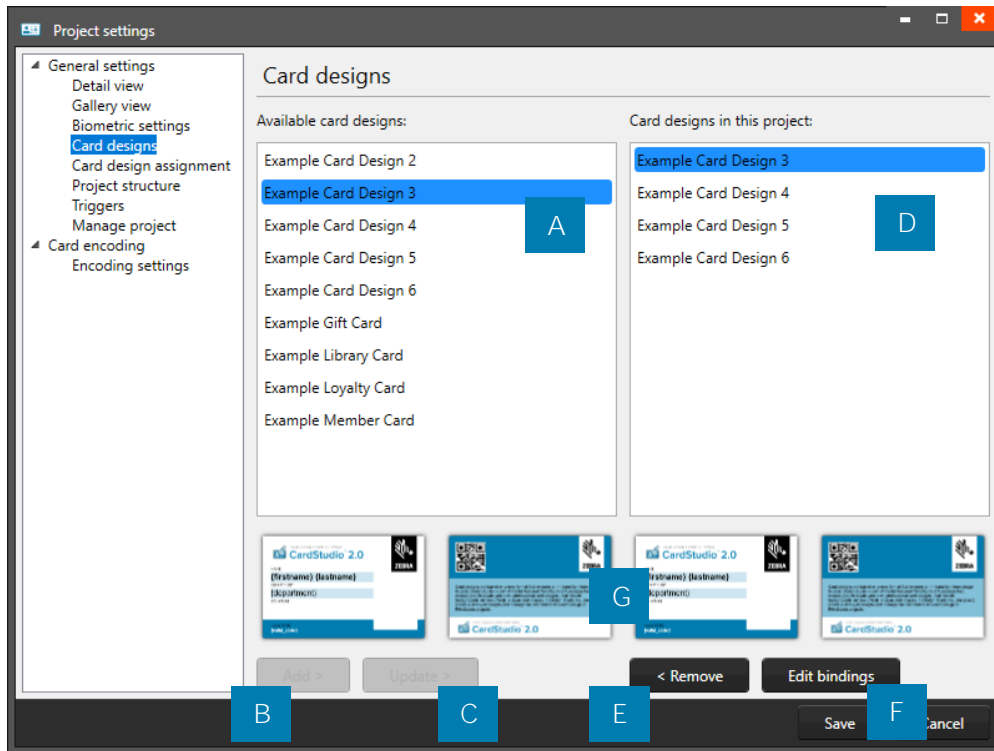


Example of photo's that have filenames corresponding with their ID number.

- E. Select with what dpi and size the photos need to be saved within your project.
- F. The checkbox for the signature allows you to make signatures visible in the project and enable you to add signatures. The signature section works the same as the passport photo section above.
- G. Click on the “Next step” button to go to step 3. and configure the detailed and gallery view.

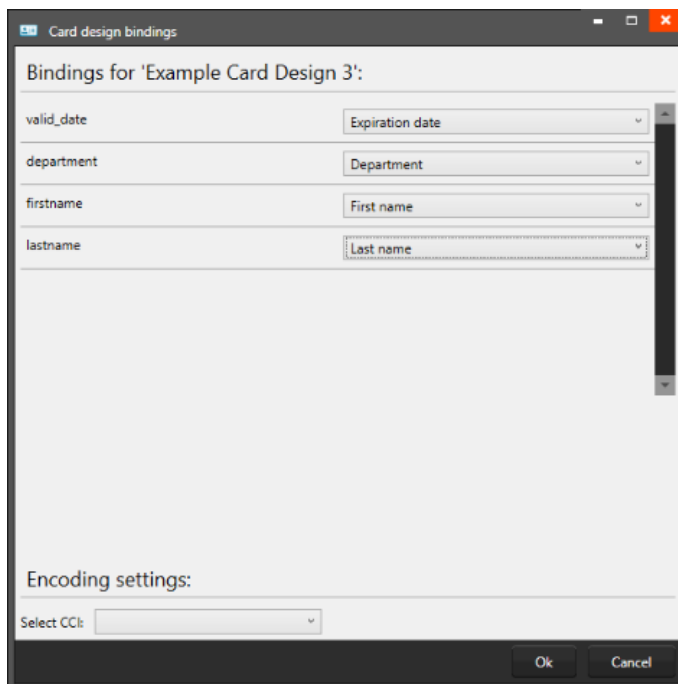
Card Designs

Add and manage Card Designs in your project.



Example of the Project settings: Card Designs

- A. Select one of the available designs.
- B. Click on the “Add” button to add the design to your project. If the Design has Dynamic data, bind this data to the correct data fields in your project.
- C. If you already have a card design in the project, but changed the design, choose to update it by clicking on the “Update” button. Any change made to an existing design in the project will be updated after clicking on this button.
- D. If you want to remove a design from your project, select one of the designs in this list, then click on E.
- E. Click on the remove button if you want to delete one of the selected designs from your project.
- F. Select a design and click on “Edit bindings” when you want to edit the bindings for the dynamic data of the card design.



1. The data binding tool is a powerful option in PrintStudio.

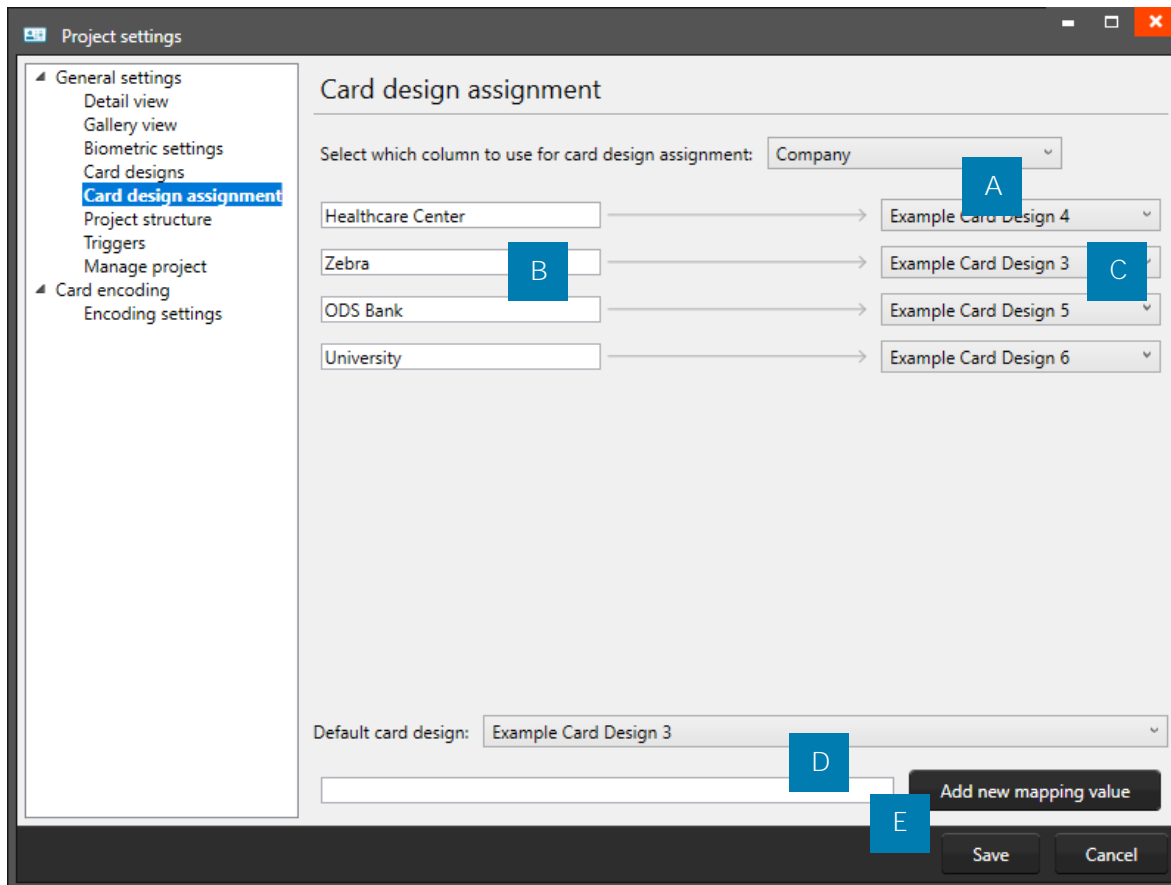
When you add a new layout or update a layout you will be prompted to create the data bindings. Dynamic fields used and created in your layout may differ from the naming or spelling of a name that exists in your Project database. Therefore, you will be allowed to create the data bindings.

The dynamic fields that are created in the layout are presented to the left and you can bind these dynamic fields to the database fields. The tool will create the bindings for you that are obvious: if they are the same or as they were bonded at the previous update; of course, you will be able to modify the bindings and confirm these settings. The new or modified layout will be available in the dashboard of CardStudio Identity.

- G. Preview of a selected Card Design.

Card designs assignment

It is possible to assign the card designs using a specific project column.

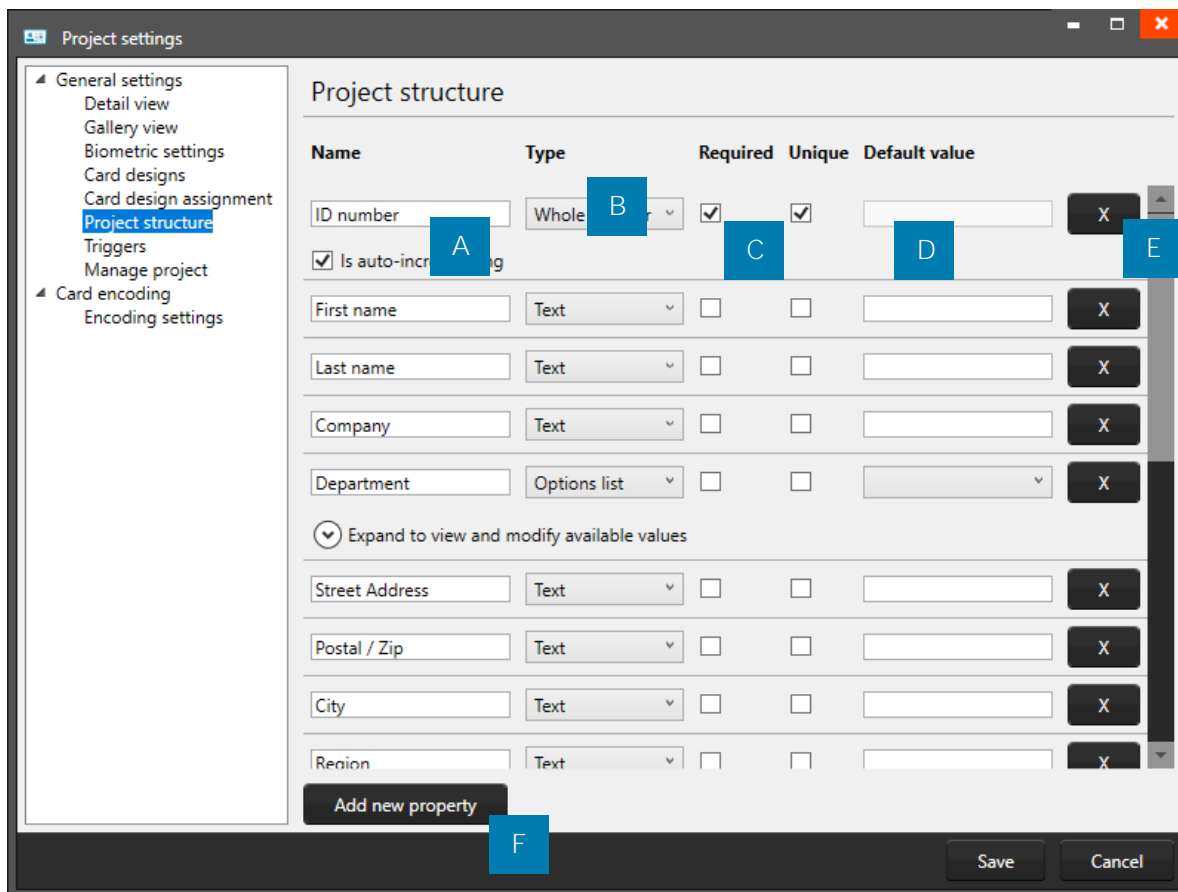


Example of the Project settings: Card design assignment

- A. Click on the drop-down menu to select the column. In the example we select the Company column. There is a different card design for every Company in the project.
- B. Enter the value that needs to be linked to a specific card design. In the example company names are entered.
- C. Select one of the available card designs from the drop-down menu and link the design to the value entered in the input field (B).
- D. Select one of the card designs from the drop-down menu as the default design for all the data not corresponding with the values entered above.
- E. Enter another value to add to the mapping and click the “Add new mapping value”. For example if you would like to add another company with a new company design.

Project structure

The project structure settings is for managing your structure. You can create, edit or delete data columns in your project.



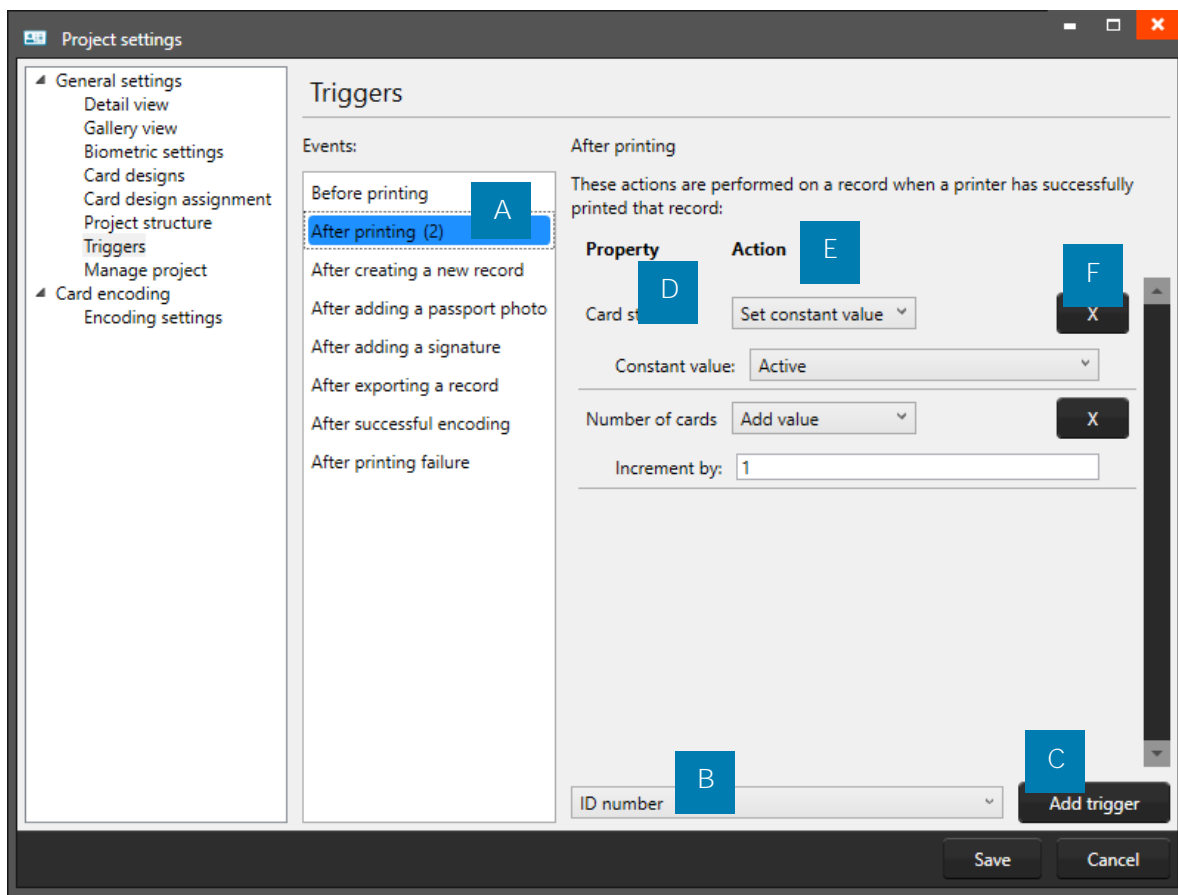
Name	Type	Required	Unique	Default value	
ID number	Whole	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		X
<input checked="" type="checkbox"/> Is auto-incrementing		<input checked="" type="checkbox"/>			
First name	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Last name	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Company	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Department	Options list	<input type="checkbox"/>	<input type="checkbox"/>		X
Expand to view and modify available values					
Street Address	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Postal / Zip	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
City	Text	<input type="checkbox"/>	<input type="checkbox"/>		X
Region	Text	<input type="checkbox"/>	<input type="checkbox"/>		X

Example of the Project settings: Project structure

- A. Enter the column name.
- B. Set the data type. Select if the data are number or text for example. The following types of database fields are supported:
 1. **Whole Number**, when selecting this type, you can select 'auto-increment'. When a new record is created the number will be the highest number in the Project increased by 1.
 2. **Text**
 3. **Decimal number**
 4. **Option list**, when this list type is selected, you can add and delete the list values from the list that is presented for this database field. When you change a datatype from text to option list, PrintStudio automatically generates a list based on the data already in that data field.
- C. Check these boxes if the field needs to be "Required" and/or "Unique".
- D. With the default input field, you can add a standard value to your data field, existing empty fields and new records will automatically get the default value you add to this data field.
- E. Click on the "X" button to delete a data field from the project structure setup.
- F. Click on the "Add new property" button and add and describe the data field names you want to use in your new project.

Triggers

Setup triggers for your project. Triggers can be used to automatically change data in your project on a certain condition or event.



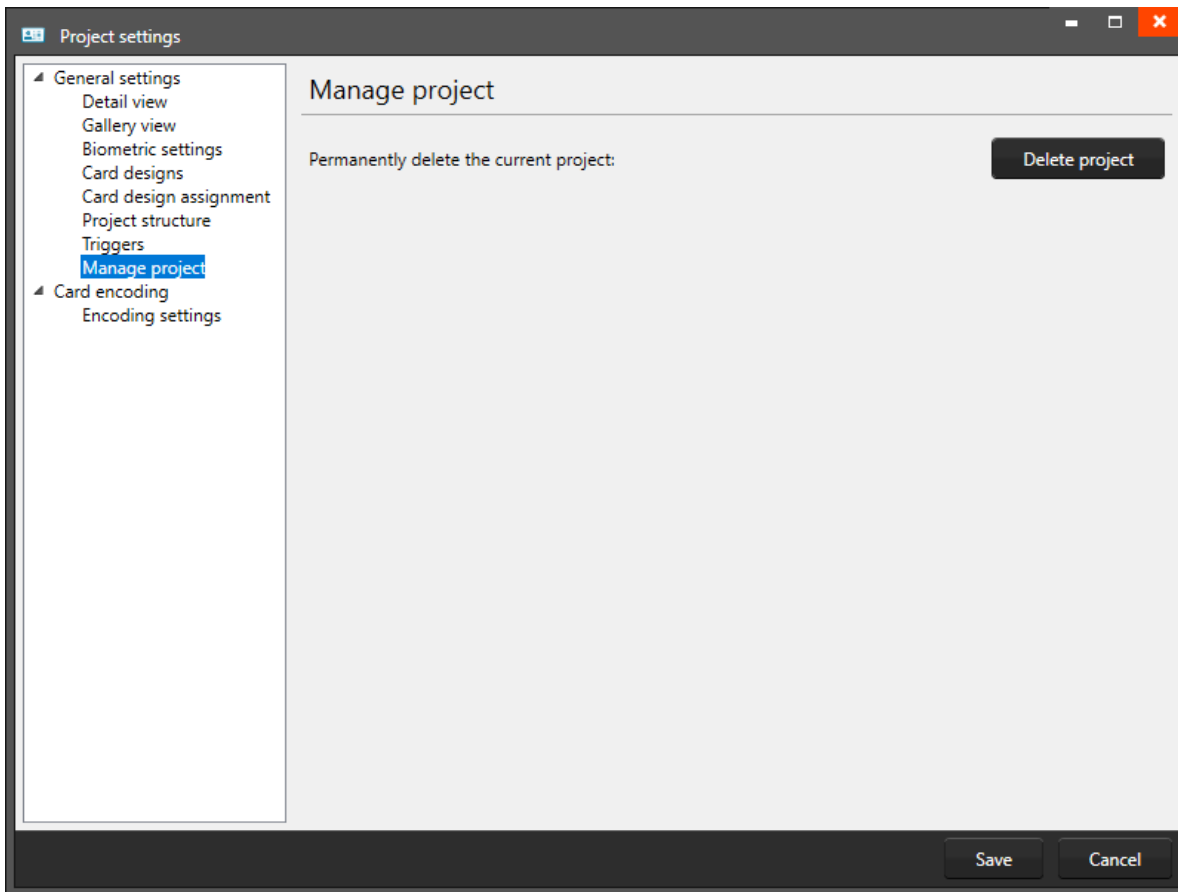
Example of Project Settings: Triggers

- A. Select one of the events from this list and add specific triggers. PrintStudio will automatically wait for the event to occur before performing the action that is linked to the trigger.
- B. All data columns of the new project are listed. Select one of the columns to link a trigger action to it.
- C. Click on the “Add trigger” button to add the trigger to the data column and specify the trigger with events and actions.
- D. The property shows you the selected data column.
- E. Select the action you want to connect to the data column from the drop-down menu and define the action.
- F. Click on the “X” button to delete a trigger from an event.

Define the action that is performed once the event has been met. Some actions are only available for specific columns (for example, incrementing number values can only be done on number type columns). All changes need to be saved before they become active. Understand that triggers might cause your original data to change, so make sure no vital data is lost when working with triggers.

Manage Project

Delete your project. You are able to completely delete the current project you are working on.



Example of the Project settings: Project management

PrintStudio Link Card Design to record

PrintStudio

Link Card Design to record

Link your records to your Card Design, so you can print a card.

When a data record is selected click on the “[Link](#)” button of one of the card designs in the Card Designs Gallery view to connect the design to the record. To change the connection to a different lay-out the user can click on the “[Unlink](#)” button and link another design. It is possible to select multiple data records at the same time and connect the selected records to a lay-out. Use CTRL+A, + CTRL or +SHIFT, Use CTRL+A to select all records.



PrintStudio Records

PrintStudio

Records

Records are single data rows that contain all the information of one person. There is a button for adding and deleting a record.

Add Records

Records are single data rows that contain all the information of one person. There is a button for adding and deleting a record manually. (To add multiple records, choose to import an excel file for example.)



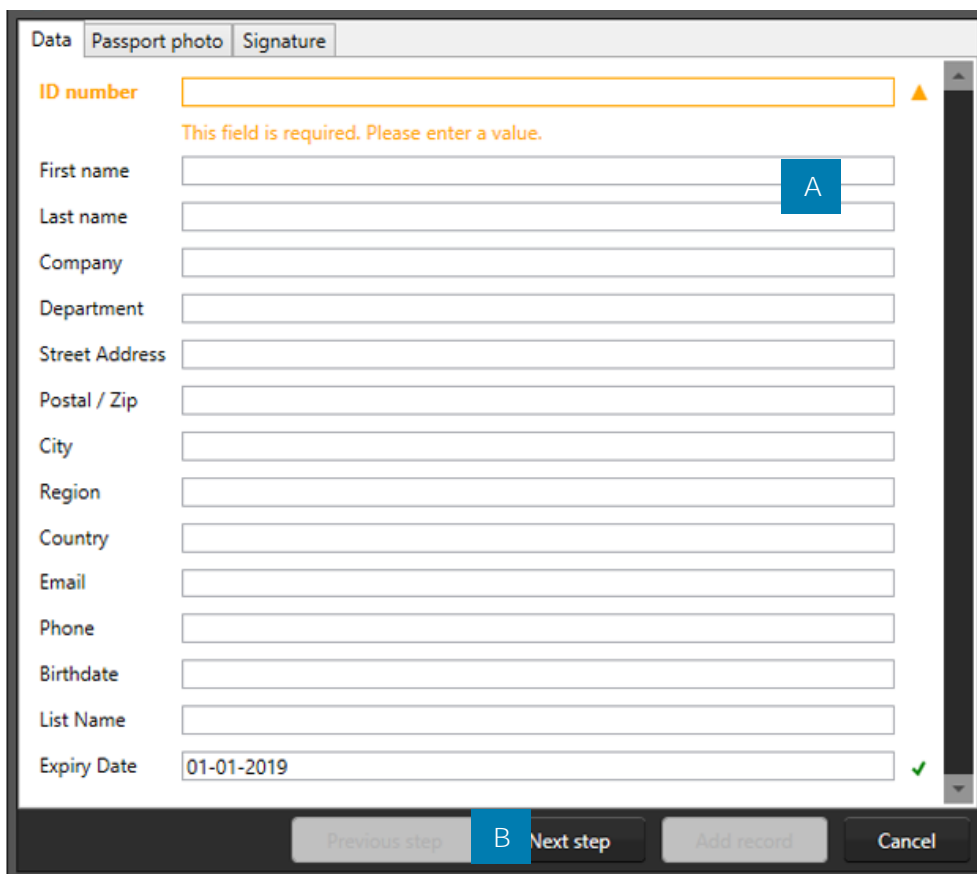
1. Add a new record

If you add a record, a new pop-up window will appear to enter the new record data. The entry form allows the user to enter the data and Capture Photo and/or Signature.

1. Information

A. Enter the needed information for each field and click on the

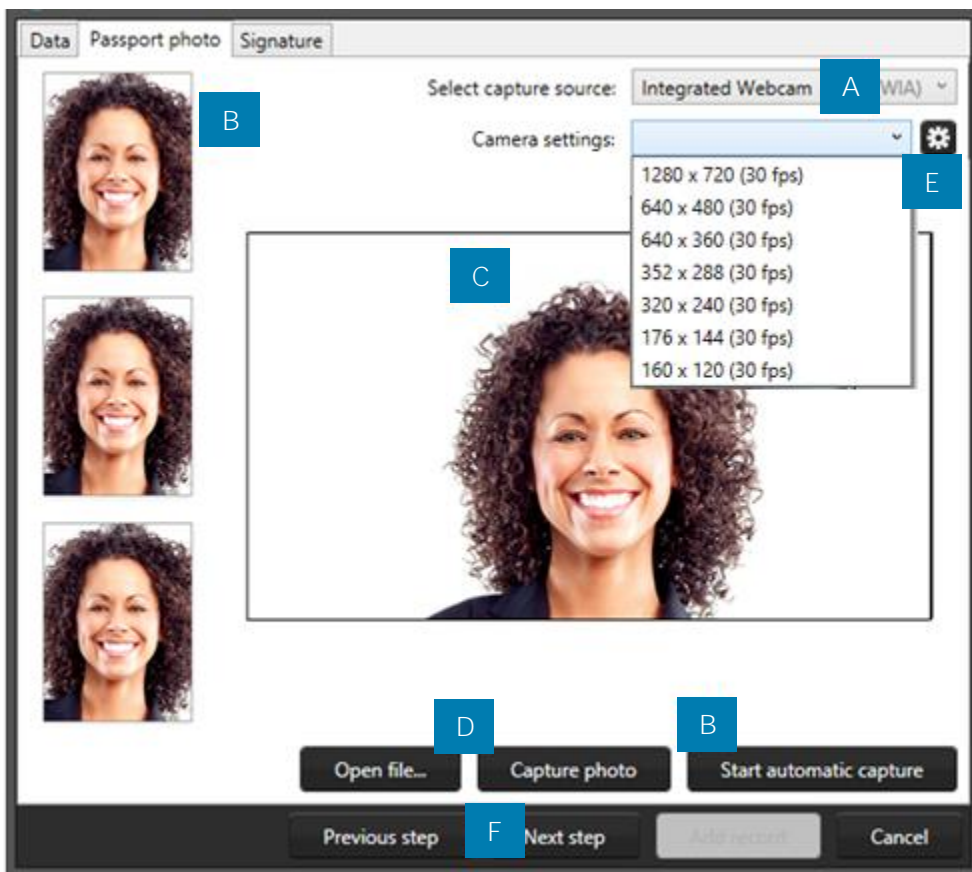
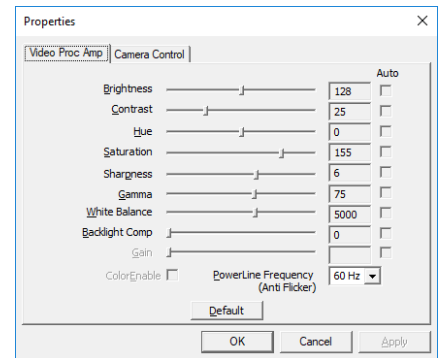
B. “Next Step” button.



Example of the information tab when adding a new record.

2. Photo

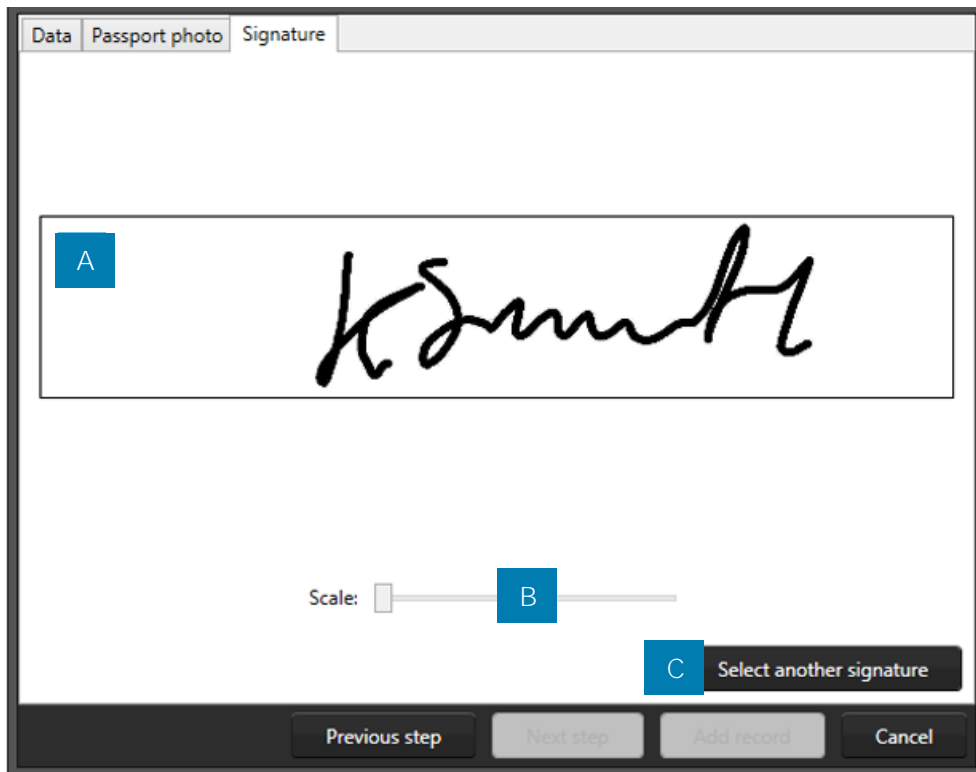
- A. Select the source of camera you want to use from the drop-down menu. You can choose to use your web cam or a TWAIN camera that you installed and connected to your computer.
- B. Click on the “Start automatic capture” button. The application will detect your face automatically and take three pictures. You can select one of the three pictures to add to the new record.
- C. The Photo functionality will show you the camera view.
- D. Click on the “Capture photo” button. The Photo functionality will show you the camera view. You are also able to upload an image from your computer. Click on the “Open file...” button to select an image from a file.
- E. To change the camera setting click on the drop-down to select the capture resolution and click the settings icon to adjust more settings. These settings can be different depending on the camera.
- F. “Next Step” button.



Example of the photo tab when adding a new record.

3. Signature

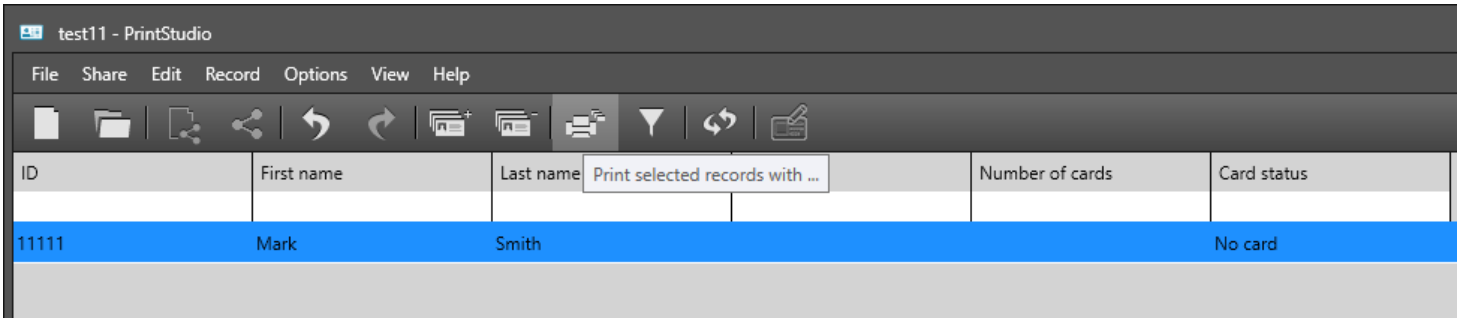
- A. Connect the signature pad to the PC. Use a signature pad to write a signature into this field.
- B. Scale the signature using the slider.
- C. Select a signature from file.



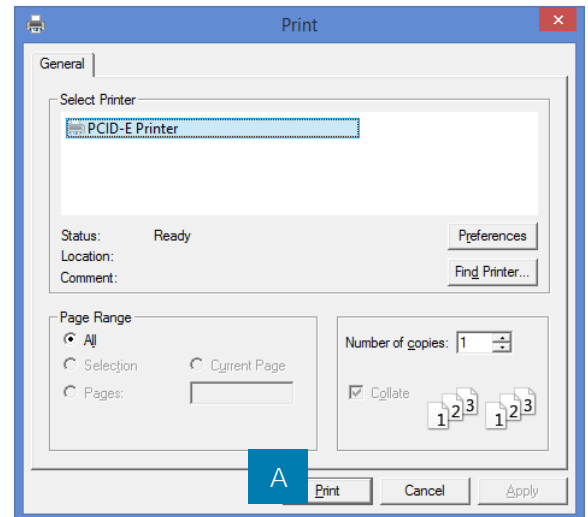
Example of the signature tab when adding a new record.

Print records

To print a certain record, select it and then click on the print button in the quick menu or go to File and click on the print link.

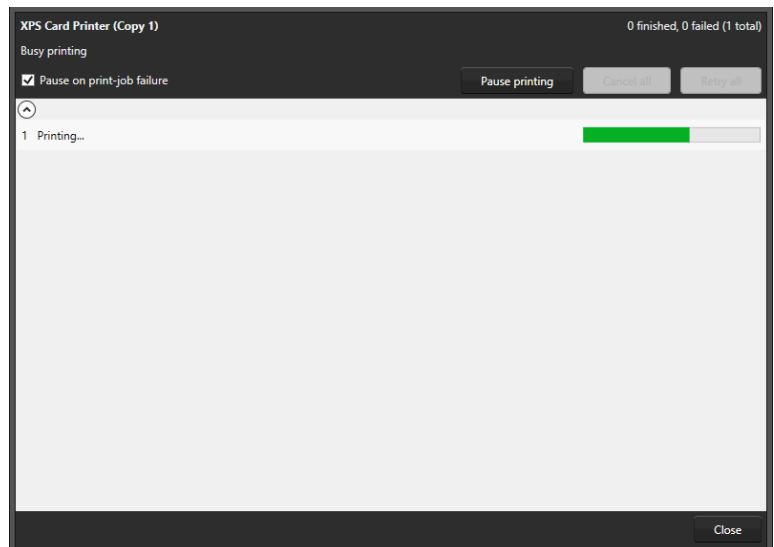


- A. A print window appears, and you can select the printer you installed for the card printing process. This manual does not describe the installation of printers. Please refer to the Zebra Card Printer manuals for further information on these devices. After you select the printer you click on the “Print” button.



Example printer setup window.

- B. A print progress window will pop up that will show you the progress of the cards that are being printed.



PrintStudio Database Connection

PrintStudio

Database Connection

PrintStudio Project with database connection allows users to connect with external databases, and use the data to complement their local project, or even base the entire project upon. There are four types of databases supported:

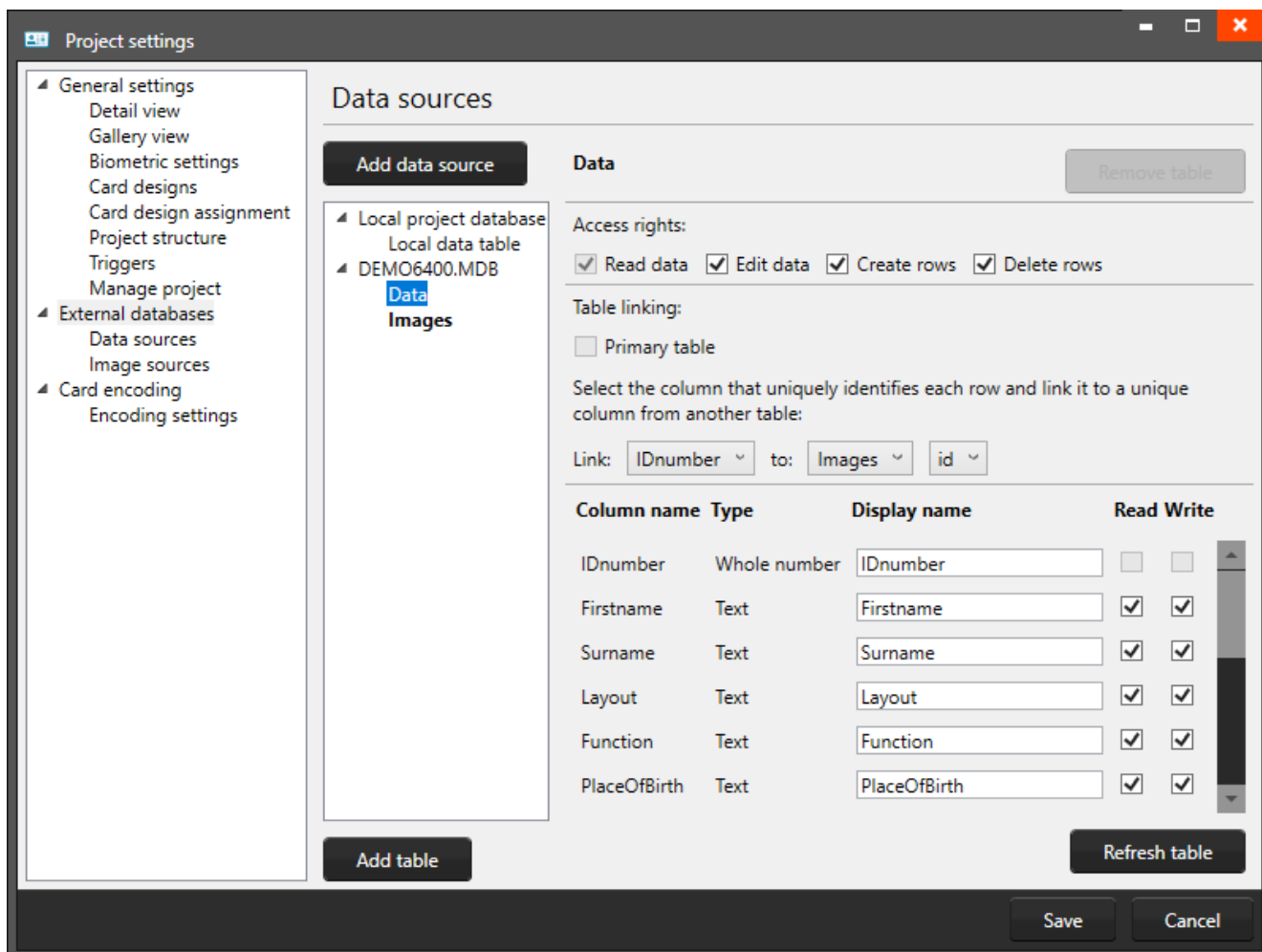
- Microsoft SQL Server
- Microsoft Access files
- MySQL Server
- Oracle Server

Choosing from one of these four settings is highly recommended, however it is also possible to connect to a database through an ODBC driver. Connecting with one of the supported databases allows you to make full use of the database's functionality. For example: PrintStudio will automatically lock tables when adding or updating records, it will automatically detect user rights and allows you to work with views.

Connecting with a data source through an ODBC driver provides you with more basic functionality, but it will suffice for most single-user environments. PrintStudio projects with database connection will automatically detect any available ODBC drivers on the system, if the required ODBC driver is not listed, it can be installed using the Microsoft update website or tool in your operating system.

Note: CardStudio™ 2.0 does not create an external database for you, it only creates a connection to an existing external database.

The screenshot below shows the Project Settings dialog, where the option for PrintStudio projects with an external database connection will be present depending on the CardStudio Edition you purchased.

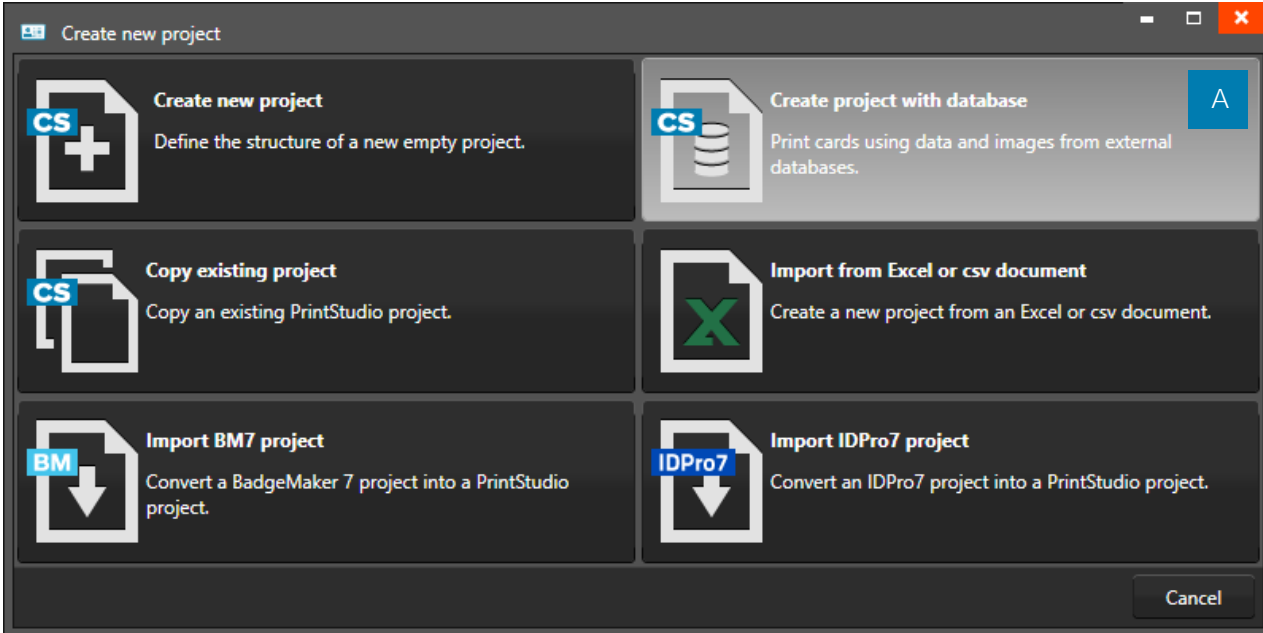


Setting up a PrintStudio Database connection

How to set up a PrintStudio Project with Database connection

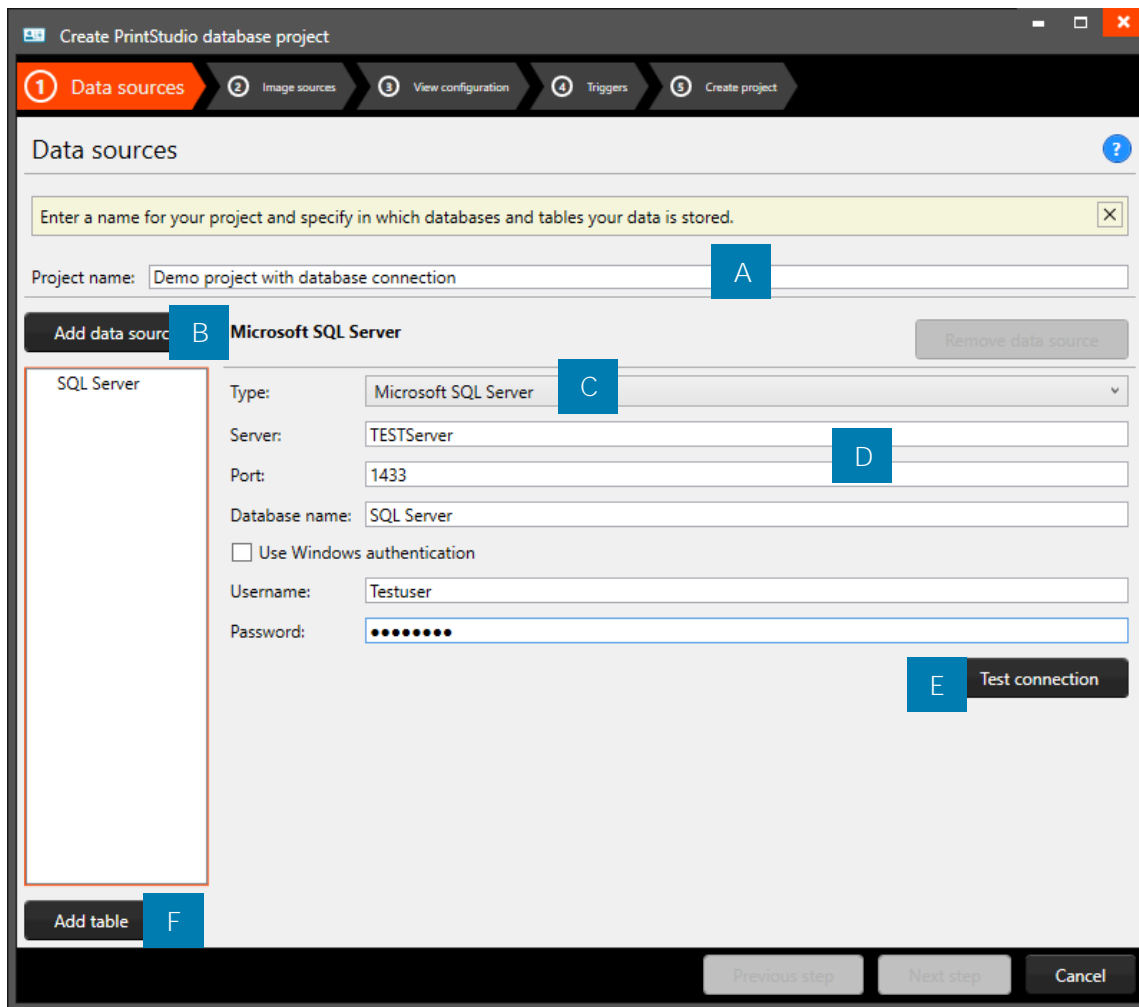
Follow these steps if you want to create a project using an external data source as your primary source of information. Start by creating a new project.

A. Click the New Project icon and select “[Create project with database](#)” from the dialog.



Example of a New Project pop-up window: Create project with database.

Connect with database



Example of a new PrintStudio Project with external database connection step 1: data sources.

- A. Enter the name of your New PrintStudio project with database connection.
- B. Click on the “Add data source” to connect the database with your external database.
- C. Select the type of database you would like to connect with. Different types of databases are supported:

Configuring a Microsoft SQL Server data source

After selecting Microsoft SQL Server as the type of data source, you can fill in all information required to connect to the server.

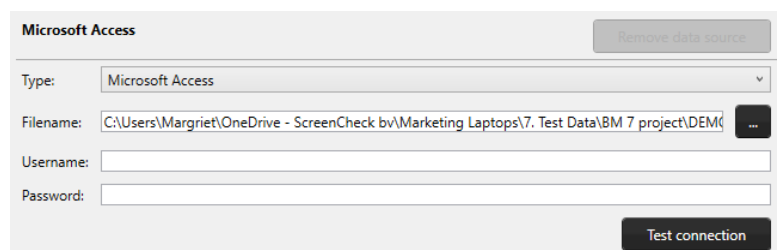
- D. **Server:** Path or IP address to the server. If the server is hosted on another system in the network, it can be either addressed as \\servername or the IP address of the server. Information such as the database name, username and password, in most cases are provided by your database administrator.

Note: to be able to work with a Microsoft SQL Server, an active network connection must be available.

Configuring a Microsoft Access data source

To define a Microsoft Access data source, select the option from the drop-down list, and find the path to your database by choosing the Browse (“...”) button behind the Filename field.

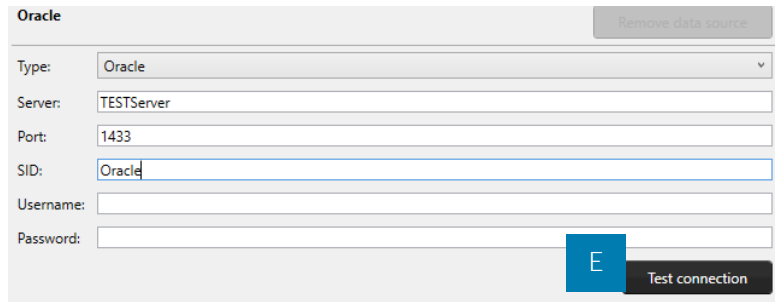
Please note that a username and password may not be required for your Microsoft Access file, in which case these fields can be left empty.



Configuring a MySQL or Oracle data source

Configuring a MySQL or Oracle server as a data source is done the same way as defining a Microsoft SQL Server data source.

Server: Path or IP address to the server. If the server is hosted on another system in the network, it can be either addressed as \\servername or the IP address of the server.



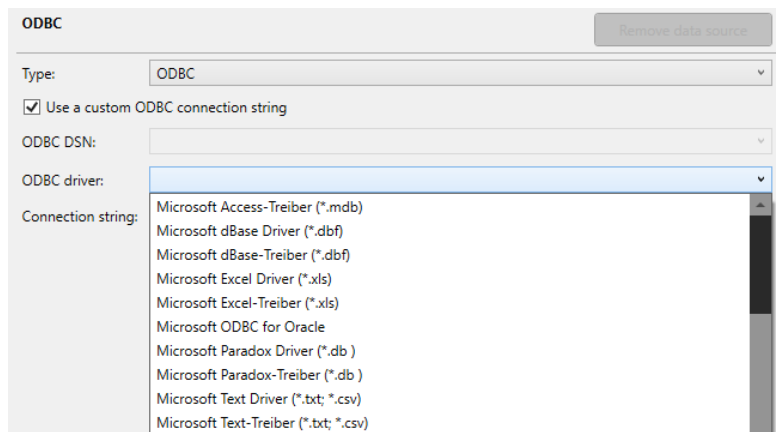
Port: Databases have a standard or adjusted port number. PrintStudio uses the standard port number when the input field is left empty. Information such as the port number, database name, username and password, in most cases are provided by your database administrator.

Note: to be able to work with a MySQL or Oracle Server, an active network connection must be available.

Configuring a data source through an ODBC driver

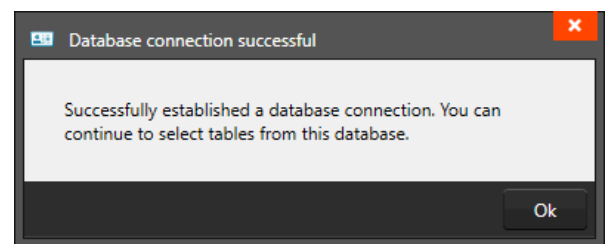
After selecting ODBC as the type of data source, select one of the ODBC drivers installed on your system. Please note that Windows may have more than one driver installed per file extension.

After selecting the driver, you can provide a direct path to your database file. This can be a local path (C:\Example\Example.mdb) or a remote path (\\Server\Example\Example.mdb).



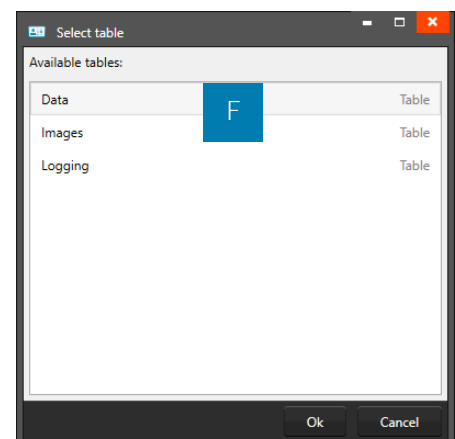
Note: To be able to open your project using a remote directory, an active network connection must be available.

- E. After configuring the data source, click the button “**Test connection**”. Once the pop-up reports “**Database connection successful**” you can proceed. If the connection cannot be established, the dialogue will report a detailed overview of the problem. Check all information and make sure a connection with the external server is available before trying again.

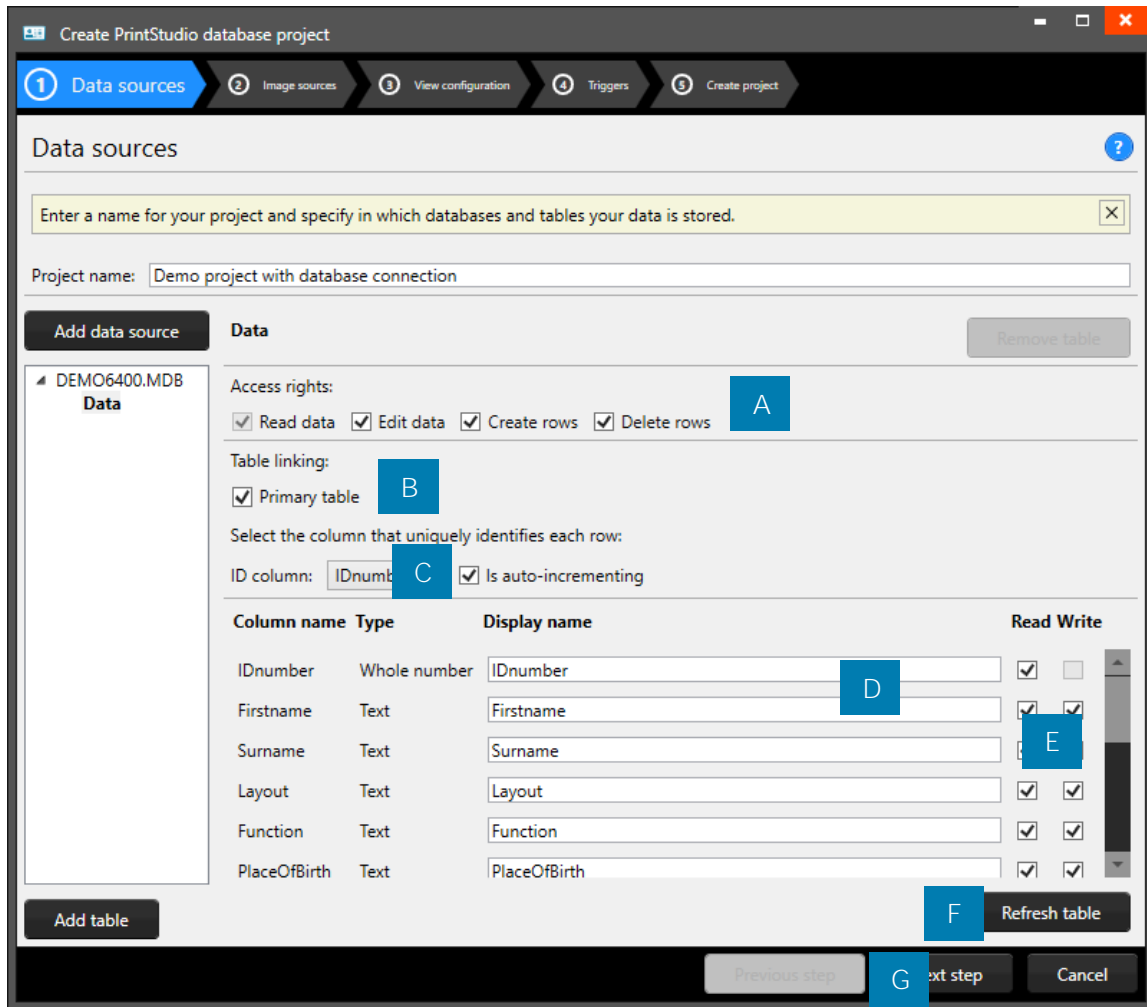


- F. Once the connection is established, click “**Add table**” to continue configuring your data source. A pop-up dialogue will list all tables available for you.

Microsoft SQL Server will likely only list database tables, where other files (such as MS Access databases) might also list tables otherwise invisible to the user.



Configure the database tables for the project



- A. After selecting a table, you can configure the rights to the table, and to each of the listed columns in the table. Users connecting with a Microsoft SQL Server can create and remove rows, whereas users connecting through an ODBC database will only be able to select the “**Edit data**” checkbox for existing rows.
- B. The newly created data source will have the “**Primary table**” checkbox checked. This setting can only be altered during the process of defining the data sources, so make sure that the primary table is correctly configured.
- C. For a primary table, you can define the “**ID column**” this is a column containing unique, numeric data. For secondary tables, you must define its relation to the primary table or to one of the tables linked to the primary table. This means that each table will have to contain a column containing a corresponding type and kind of data. It is advised to keep the column marked as “**ID column**” as read-only or even hidden if the data in the column is not crucial to users working with the data grid.
- D. Edit the display names of the column as you see fit for your PrintStudio Project.
- E. The list of columns can be used to define certain restrictions to each column such as “**Read**” or “**Write**”. By default, columns will be marked as “**Read**”. Think carefully about what data to manage through PrintStudio, and what data should be managed by other external systems.
- F. Click on the “**Refresh table**” to make sure that all the data loaded from the database table is up to date.

- G. Click on the “Next step” and finish the next steps and create the project. With the second step you can define the image sources for Passport Photos and Signatures in your project. You can choose from three different options:
1. [Read image from local project](#)
Selecting this option stores captured images along with the CardStudio Identity project files. This option can be used to capture new image data.
 2. [Read or download image from path or URL](#)
This option allows you to read images from a remote directory either on a server or on a network drive. This can only be used to *read* image data. New data cannot be captured.
 3. [Read image from database \(blob\)](#)
This allows you to read an image from a specific column in the database marked as BLOB (Binary Large Object) This option can be used to both read existing data and capture new image data to the database.

Changes when working with PrintStudio with external database connection

There are a couple of changes that may be noticeable when working with PrintStudio connecting to an external database in comparison to regular PrintStudio projects.

Loading times

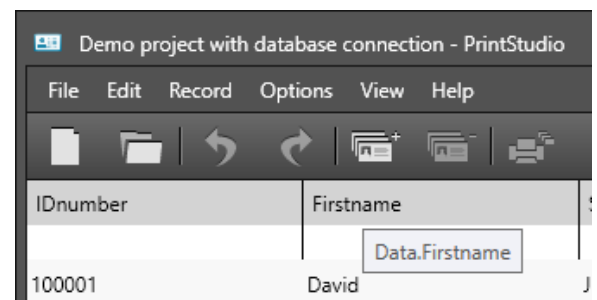
The time it takes to load your project, or to process changes to your database may increase. This is due to the time it takes to transfer data over the network, login to the database or retrieve data from the external data sources.

Grayed-out columns

Columns that have been marked as “read only” will have a grey background color when selected. It simply means that you will not be able to alter data for that specific column.

Data from local or external database

When working with multiple data sources, it can become confusing to remember what information belongs to what data source. In order to clarify, PrintStudio labels sources with <table_name>.<column_name>. This means that a column “Firstname” coming from a table called “Students” will be displayed as “Students.Firstname”. In the project this will display when hovering over a column name.



Updating or adding pictures

Depending on the read or write access restrictions and the configuration of image sources in your project, you may or may not be able to add new images.

Project has stopped working

PrintStudio cannot prevent external data sources from changing. If a file gets removed, or a database gets changed, it might cause your PrintStudio project to stop working. Always consult with your database administrator to ensure that data you need in your PrintStudio Project is made redundantly available to you.

Default values

When creating a new project, or when altering a project structure, you can define certain default values for your column types. However, when using PrintStudio with an external database connection, these default values will be only filled for new records or when manually entering the information into the field. The reason for this is because the local project data does not contain the same amount of records as the external sources, and new records are never created automatically.

PrintStudio Encode

PrintStudio

Encode

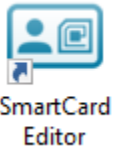
CardStudio Encode allows you to encode data from your PrintStudio project onto a smart card. With CardStudio Encode, CardStudio introduces a new file format that is used to contain all information related to the encoding of the card, which can easily and securely be shared with other parties who collaborate on the same project.

Contactless Encoding

CardStudio Encode currently supports the encoding of MIFARE Classic, Plus and DESfire cards. Encoding is done using card printers that are fitted with a “reader” such as the HID Omnikey or the Springcard Crazy Writer.

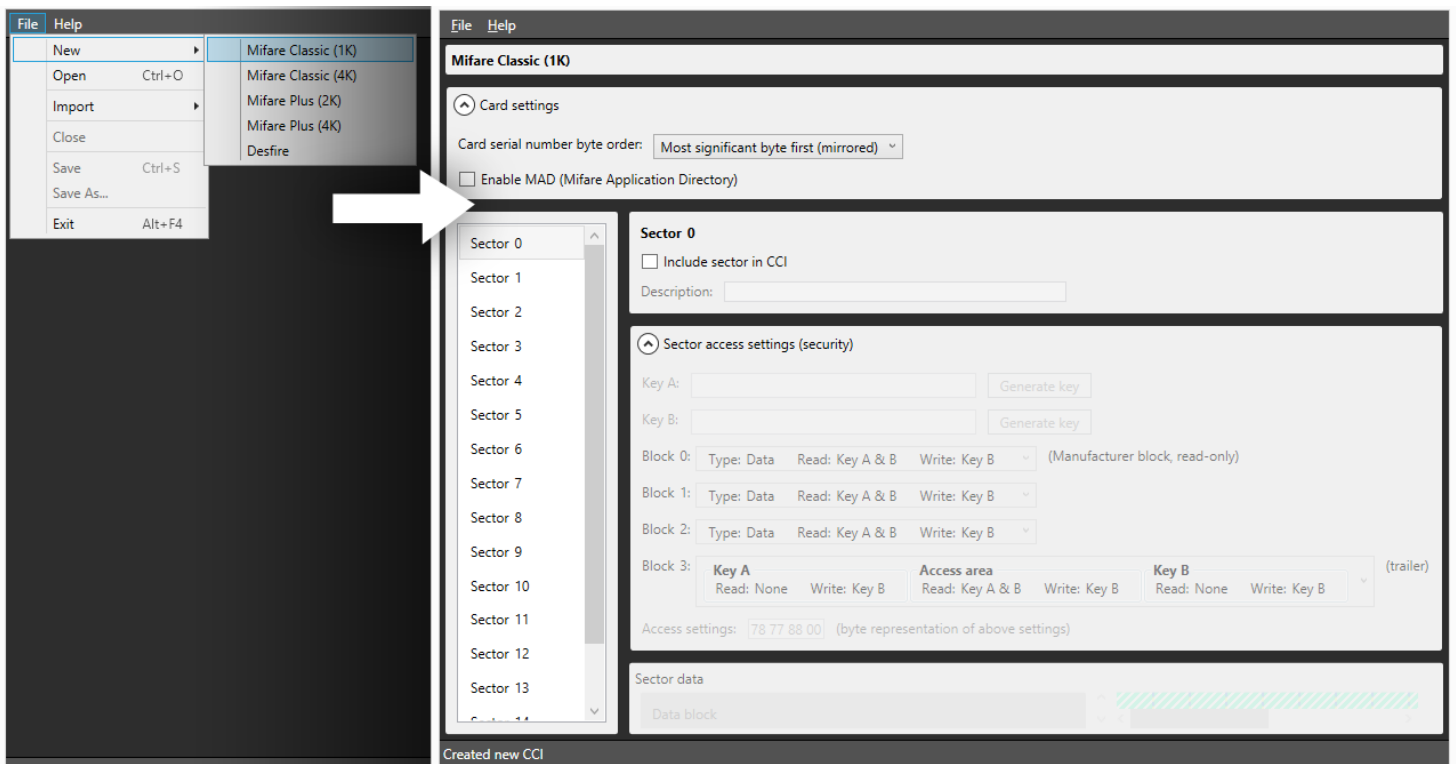
SmartCard Editor

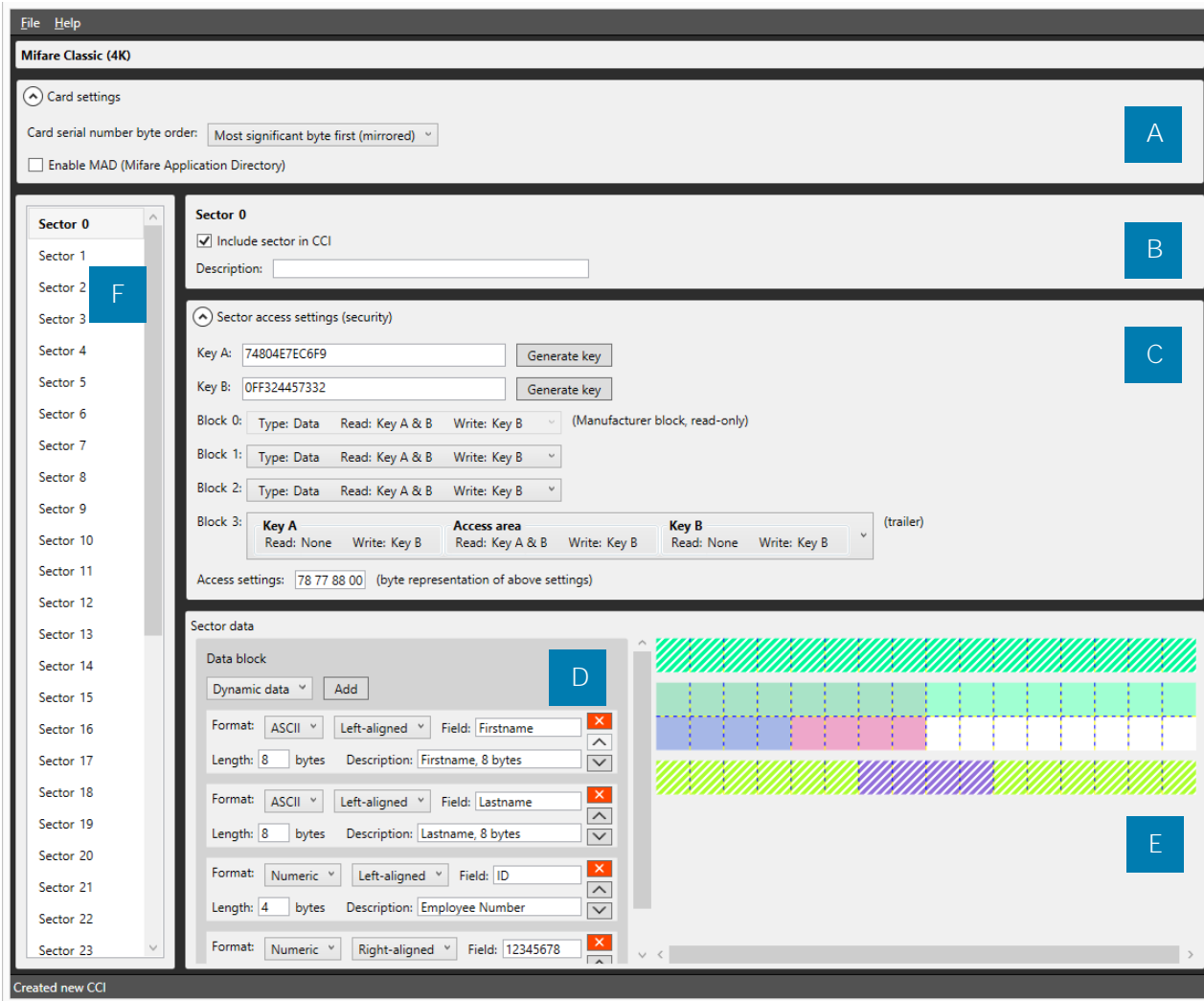
The SmartCard Editor is a tool that is made available to all users of the CardStudio software package. This tool allows you to create an encoding template for MIFARE Classic, Plus and DESfire cards using all the major features for each of the standards.



Creating a MIFARE Classic Template using the CCI Editor

Launch the SmartCard Editor, which will open to a blank window. Choose “File” → “New” → “Mifare Classic (1k)” or “Mifare Classic (4k)” depending on your project requirements.





- A. The Card Settings are displayed on top of the screen. You can define whether the card should use MAD Sectors (Mifare Application Directory documents directory-like structure that describes how sectors on card are used) or not. Enabling this setting will have an impact on specific sectors and their contents. It will also automatically generate Key A for sector 0 (and sector 16 for 4K cards).
- B. Description of the sector.
- C. Define keys, determine read and write settings for each of the four data blocks.
- D. Create data segments to fill the available space.
- E. The CCI Editor visualizes any data that will be encoded onto the Smart Card to give the user a better view of the amount of used and available space in each sector. Certain blocks (such as Block 0 on Sector 0, and the Trailer Block on all sectors) are reserved for manufacturer information and storing keys. These are not available to the user and are displayed as hatched.

Each square represents one byte of information. When adding sector data, the length of the data is visualized on the right. Each item in the list is given a slightly different color to make it easier to understand how the data is transferred to the card.

- F. List of sectors is displayed, 16 for 1K cards, 40 for 4K cards. Depending on the settings, each of the sectors can contain information that will be encoded onto the card using PrintStudio.

Information about Sector Data

Sector data

Data block

Dynamic data Add

Format: ASCII Left-aligned Field: Firstname X

Length: 8 bytes Description: Firstname, 8 bytes

Format: ASCII Left-aligned Field: Lastname X

Length: 8 bytes Description: Lastname, 8 bytes

Format: Numeric Left-aligned Field: ID X

Length: 4 bytes Description: Employee Number

Format: Numeric Right-aligned Field: 12345678 X

Dynamic Data

This is information that will be added to the card by your CardStudio project. Like adding card designs, when you add a CCI file to your project, a pop-up will allow you to bind columns in your project to each of these items. You must always ensure that the data in your project corresponds with the settings you have chosen in terms of length and data type. The following data types are available.

- ASCII All standard ASCII characters are allowed.
- Numeric 0 ... 9
- Alphabetic A ... Z and a ... z
- Alpha-numeric A ... Z, a ... z and 0 ... 9
- Alphabetic and special A ... Z, a ... z and Punctuation marks
- Alpha-numeric and special A ... Z, a ... z, 0 ... 9 and Punctuation marks
- Binary-coded decimal (5) 0 ... 9, two digits in one byte, maximum 5 bytes
- Binary-coded decimal 0 ... 9, two digits in one byte
- Binary-coded decimal date YYYYMMDD each two digits in one byte
- Decimal 0.00 (Fixed point)
- Wiegand-26 Facility and card codes with parity
- Hexadecimal 0123456789ABCDEF
- Octal 012345678
- Binary 01

In addition, you can add a description of the sector data to remind you of certain agreements.

Constant Data

Constant or Static data is data that is manually entered in the CCI file and will never change. The format of this piece of information can be of any of the types mentioned in the Dynamic Data section.

Empty Space

This item can be used to indicate a specific part of a sector that will never be used.

Card serial number

This is a 10, 7 or 4-byte, data section which will automatically contain the card serial number when the card is being encoded.

Using these options, you can create any type of CCI file. Once completed, you can save your work in either an unencrypted file (XML) or an encrypted CCI file. If you choose the latter option, you will be required to enter a password that will also be required when adding the CCI file to your CardStudio Identity project.

Creating a MIFARE DESfire template using the CCI Editor

DESfire cards take an entirely different approach to encoding compared to MIFARE Classic or Plus cards. With DESfire, you can define Applications and Files that contain information, each with specific access settings. Similar to MIFARE Classic, launch the SmartCard Editor, which will open to a blank window. Choose “File” → “New” → “DESFire”.

- A. The Card settings panel will allow you to define general rules for your encoding template. A DESFire card features a Card master key that can be used to re-encode or erase the card at any time. All keys for DESFire cards can be encoded using 3DES, 3K3DES or AES encrypted keys. A key can be either generated or entered manually.

The other options for the Card settings dialog are self-explanatory but must be decided with caution as they will impact how flexible the card can be used after being encoded. In addition to the default DESFire features, reset keys are implemented that allow for cards to be repurposed, by users even though the Card master key might not be available. Distributing the Card master key might not be desirable because of possible security liabilities. Multiple Reset keys can be created to supply to different vendors.

- B. Once Card settings have been defined, an application can be created by choosing “Add application” on the bottom left of the screen. Doing so will automatically create an application titled “000001”.

- C. On the right side of the screen, information can be entered to define the Application such as a Description, an ID (Hexadecimal value) and the Encryption type. For each application, settings are available that define future use of the application such as allowing the Master key to be changed or Authentication settings for accessing the data in the application.

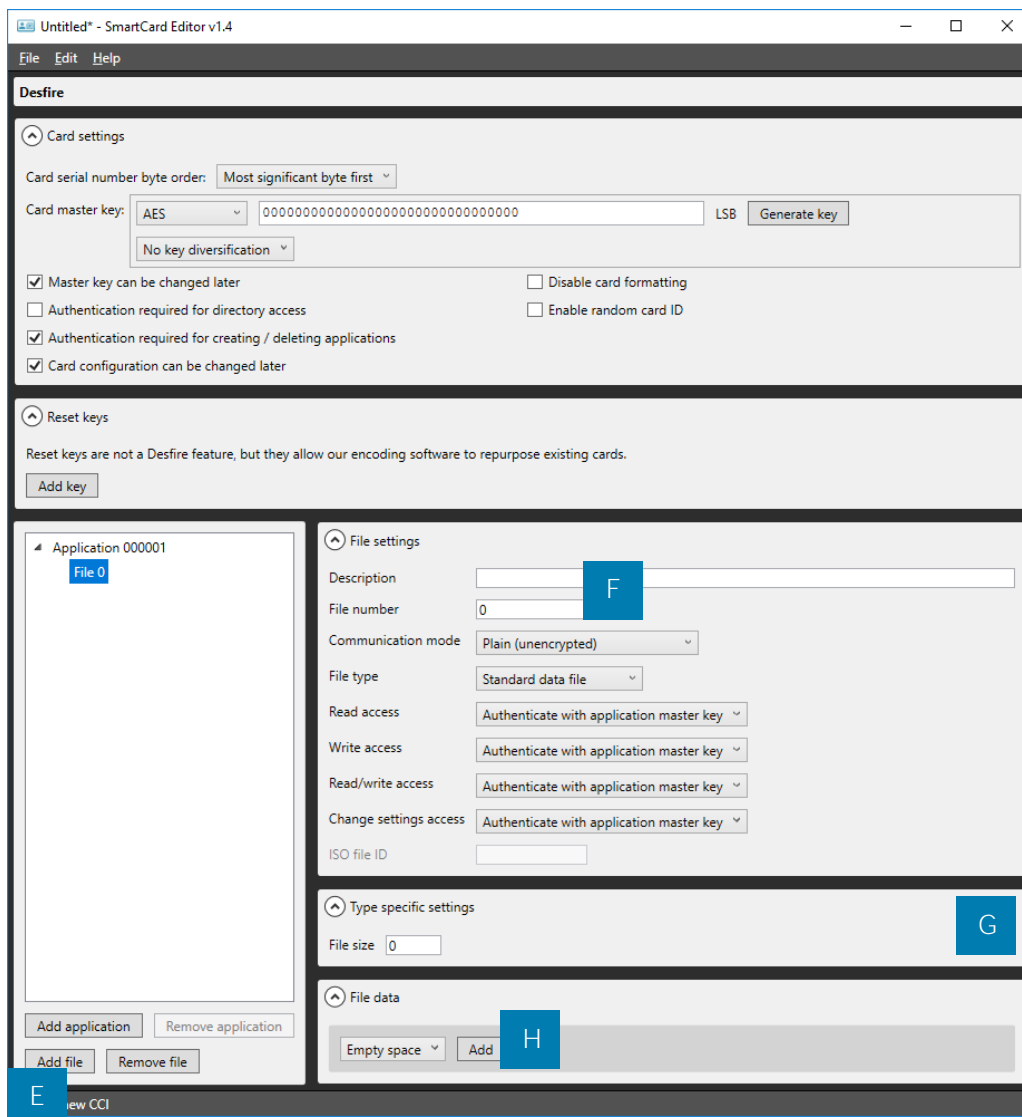
- D. Each application can have up to 10 keys that can be distributed to vendors for use of the application.

The screenshot displays the SmartCard Editor interface with the following sections:

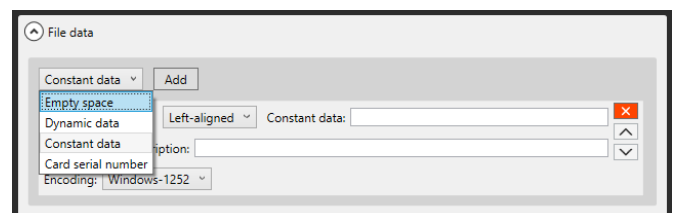
- Card settings:** Includes a dropdown for "Card serial number byte order" (Most significant byte first (mirrored)), a "Card master key" section with an "AES" dropdown, a key value field containing "82A88655011B697DB9314799B68169B2", a "0" field, and a "Generate key" button. Checkboxes include "Master key can be changed later" (checked), "Authentication required for directory access" (unchecked), "Authentication required for creating / deleting applications" (checked), and "Card configuration can be changed later" (checked).
- Reset keys:** A note states "Reset keys are not a Desfire feature, but they allow our encoding software to repurpose existing cards." with an "Add key" button.
- Application Settings (Application 000001):** Includes fields for "Description" (A sample DESfire application), "Application ID" (000001), and "Encryption type" (AES). Checkboxes include "Master key can be changed" (checked), "Authentication required for directory access" (unchecked), "Authentication required for file creating / deleting" (checked), and "Key settings can be changed" (unchecked). A "Change key settings" dropdown is set to "Authenticate with application master key". Other options include "Enable ISO file ID support" (unchecked), "Iso file ID" field, and "DF name" field.
- Application keys:** Features an "Add key" button, a key value field containing "C9F762F37206E0F07C701975F44BCFD0", a "0" field, and a "Generate key" button with an "X" icon.

Navigation buttons at the bottom include "Add application", "Remove application", "Add file", and "Remove file". Blue callout boxes labeled A, B, C, and D are placed over the "Generate key" button, the "Add application" button, the "Application Settings" panel, and the "Add key" button respectively.

- E. Once finished, choose “Add file” to create a file named “File 0” for the currently selected application.
- F. Each file will contain a Description and a File number. Communication mode determines the way in which the file can exchange data. It is highly recommended to use the Encrypted setting, as the Plain (unencrypted) mode should only be used for data that does not contain sensitive information. All DESFire file types are supported to accommodate integration with access control or payment systems that support the DESFire standard. For general purposes, select the “Standard data file” from the dropdown list. Each file has individual settings for Read, Write and Read/Write access, as well as an access rule for changing these settings after encoding the card.
- G. Standard file types require you to set the total file size. Keep in mind that this must be equal to or greater than the total amount of bytes that are used by your file data. In our example, the total amount of data used is 42 bytes, but the file is given 64 bytes instead.



- H. File data is added to the File in a similar fashion to defining MIFARE Classic or Plus templates. Select a data type from the dropdown box and choose “Add” to create a new data block. Define the data format and alignment, as well as the field as this will be the identifier once the CCI file is linked to your PrintStudio project.

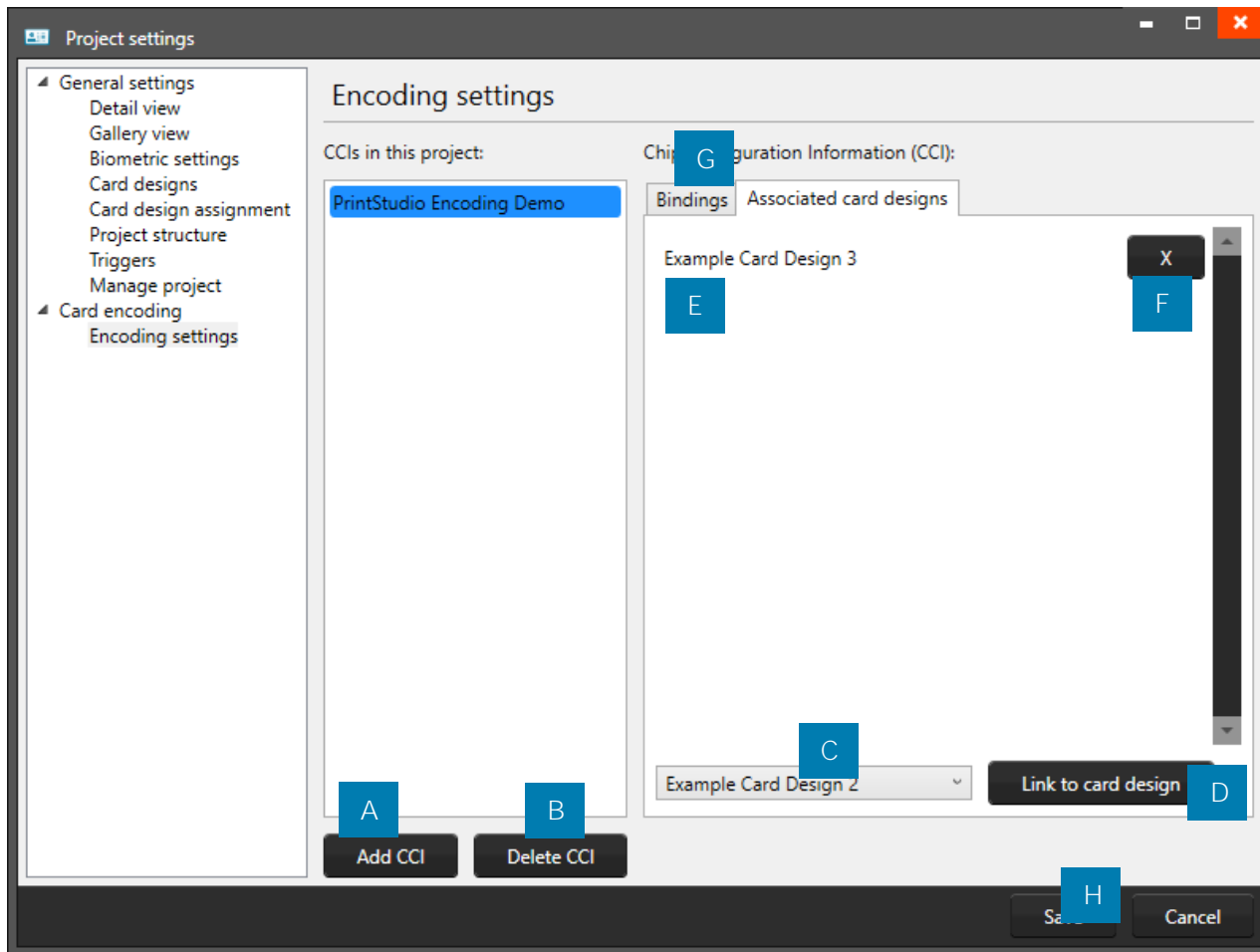


Each DESFire template can contain a maximum of 32 applications, and each application can contain a maximum of 32 files.

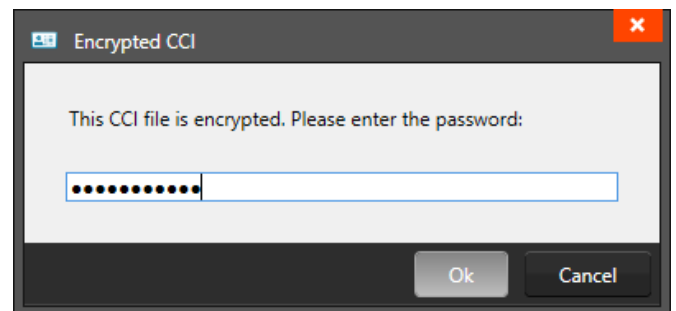
Once completed, the template can be either saved to a human-readable XML format, or a password-encrypted CCI format. Both can be used to encode cards in your CardStudio Identity project.

Encoding with PrintStudio

Encoding with CardStudio Identity has been fully integrated into the printing process. The most important step to enable encoding for your project is to add your CCI file to your project. Go to the Project Settings panel, and select Encoding Settings from the Card encoding tab.



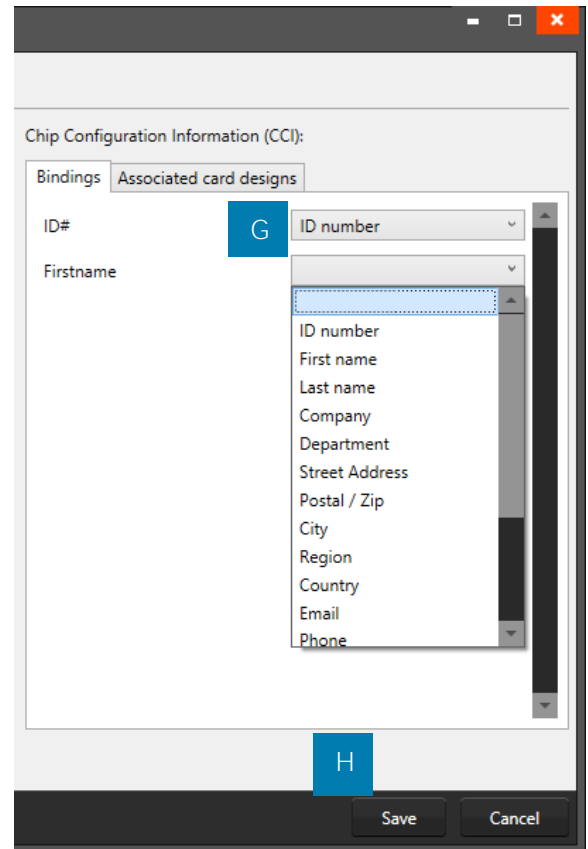
A. Click on the “Add CCI” button and select the CCI-file you created with the CCI-editor and want to add to your CardStudio project to connect to the card designs. When your CCI-file has been secured with a password you first have to fill in the correct password before the file is added to your project.



- B. When you added the wrong CCI-file or want to delete an old file you can select the file from the list and click on the “Delete CCI” button to delete the CCI-file from your project.
- C. Select the CCI-file from the list and like to connect to a card design, then select the card design from the drop-down list.
- D. Click on the “Link to card design” to link the card design to the CCI-file. Card holder Records with this card design will be encoded with CCI-file linked to the card design.
- E. Overview of all the card designs connected to the CCI-file.
- F. Click on the “X” button to unlink a card design from the CCI-file.

- G. You can bind dynamic data fields from your CCI-file to the data columns of your project card just by clicking on the “Bindings” tab and selecting one of the data columns from the drop-down menu.

- H. Click on the “Save” button to save the bindings and CCI files connected to your project card designs. You are now ready to encode your cards. Select the records connected to the correct card design/CCI-file and click on the print button.



Note: You might need to configure your printer to perform both Encoding and Printing tasks at the same time, otherwise PrintStudio might list your print action as failed, even though encoding did take place.

Supported standards

CardStudio Encode currently supports MIFARE Classic, MIFARE Plus and MIFARE DESFire standards.

